HISTORY INFORMATION FOR THE FOLLOWING MANUAL:

SERVICE MANUAL

BA-6 CHASSIS

MODEL NAME	REMOTE COMMANDER	DESTINATION	CHASSIS NO.
KD-27FS130	RM-YD001	US	SCC-S61X-A

ORIGINAL MANUAL ISSUE DATE: 9/2005

REVISION DATE	SUBJECT
9/2005	No revisions or updates are applicable at this time.

TRINITRON® COLOR TELEVISION

SONY®

9-965-989-01

Self Diagnosis Supported model

SERVICE MANUAL

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KD-27FS130	*RM-YD001*	*US*	*SCC-S61X-A*

KD-27FS130

RM-YD001

TRINITRON® COLOR TELEVISION

SONY®

9-965-989-01

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SPECIFICATIONS

	KD-27FS130
Power Requirements	120V, 60Hz
Number of Inputs/Outputs	
Video [1]	3
S Video [2]	1
Y,P_B, P_R [3]	2
Audio [4]	5
Audio Out	1
RF [5]	1
Speaker Output (W)	10W x 2
Power Consumption (W)	
In Use (Max)	175W
In Standby (Max) [5]	<1W
Dimensions (W x H x D)	
mm	768 x 590 x 497 mm
in	$30\ ^{1/4}$ x $23\ ^{1/4}$ x $19\ ^{5/8}$ in
Mass	
kg	46.5 kg
lbs	102.5 lbs

1) 1 Vp-p 75 ohms unbalanced, sync negative
2) Y: 1 Vp-p 75 ohms unbalanced, sync negative
   C: 0.286 Vp-p (Burst signal), 75 ohms
3) Y: 1.0 Vp-p, 75 ohms, sync negative; PB: 0.7 Vp-p, 75 ohms;
   PR Vp-p, 75 ohms.
4) 500 mVrms (100% modulation), Impedance: 47 kilohms
5) This specification is the maximum wattage.

Television system
American TV standard, NTSC
ATSC Compliant 8VSB, ATSC (8VSB terrestrial)
ANSI/SCTE 07 2000; QAM on cable
(Does not include CableCARD functionality)

Channel coverage
Analog: VHF: 2-69/CATV: 1-125
Digital: VHF: 2-69/CATV: 1-135

Antenna
75-ohm external antenna terminal for VHF/UHF

Picture tube
FD Trinitron® tube

Visible screen size
27-inch picture measured diagonally

Actual screen size
29-inch measured diagonally

Supplied Accessories
Remote Commander RM-YD001
Two Size AA (R6) Batteries

Optional Accessories
TV Stand SU-27FS2

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Design and specifications are subject to change without notice.

WARNINGS AND CAUTIONS

CAUTION

Short circuit the anode of the picture tube and the anode cap to the metal chassis, CRT shield, or carbon painted on the CRT, after removing the anode.

WARNING!!

An isolation transformer should be used during any service to avoid possible shock hazard, because of live chassis. The chassis of this receiver is directly connected to the AC power line.

⚠ SAFETY-RELATED COMPONENT WARNING!!

Components identified by shading and ⚠ mark on the schematic diagrams, exploded views, and in the parts list are critical for safe operation. Replace these components with Sony parts whose part numbers appear as shown in this manual or in supplements published by Sony. Circuit adjustments that are critical for safe operation are identified in this manual. Follow these procedures whenever critical components are replaced or improper operation is suspected.

ATTENTION!!

Apres avoir deconnecte le cap de l'anode, court-circuiter l'anode du tube cathodique et celui de l'anode du cap au chassis metallique de l'appareil, ou la couche de carbone peinte sur le tube cathodique ou au blindage du tube cathodique.

Afin d'eviter tout risque d'electrocution provenant d'un châssis sous tension, un transformateur d'isolement doit etre utilisé lors de tout dépannage. Le châssis de ce récepteur est directement raccordé à l'alimentation du secteur.

⚠ ATTENTION AUX COMPOSANTS RELATIFS A LA SECURITE!!

Les composants identifies par une trame et par une marque ⚠ sur les schemas de principe, les vues explosees et les listes de pieces sont d'une importance critique pour la securite du fonctionnement. Ne les remplacer que par des composants Sony dont le numero de piece est indique dans le present manuel ou dans des supplements publies par Sony. Les reglages de circuit dont l'importance est critique pour la securite du fonctionnement sont identifies dans le present manuel. Suivre ces procedures lors de chaque remplacement de composants critiques, ou lorsqu'un mauvais fonctionnement suspecte.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety checks before releasing the set to the customer:

1. Check the area of your repair for unsoldered or poorly soldered connections. Check the entire board surface for solder splashes and bridges.

2. Check the interboard wiring to ensure that no wires are "pinched" or touching high-wattage resistors.

3. Check that all control knobs, shields, covers, ground straps, and mounting hardware have been replaced. Be absolutely certain that you have replaced all the insulators.

4. Look for unauthorized replacement parts, particularly transistors, that were installed during a previous repair. Point them out to the customer and recommend their replacement.

5. Look for parts which, though functioning, show obvious signs of deterioration. Point them out to the customer and recommend their replacement.

6. Check the line cords for cracks and abrasion. Recommend the replacement of any such line cord to the customer.

7. Check the B+ and HV to see if they are specified values. Make sure your instruments are accurate; be suspicious of your HV meter if sets always have low HV.

8. Check the antenna terminals, metal trim, "metallized" knobs, screws, and all other exposed metal parts for AC leakage. Check leakage as described below.

Leakage Test

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes). Leakage current can be measured by any one of three methods.

1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instructions.

2. A battery-operated AC milliampmeter. The Data Precision 245 digital multimeter is suitable for this job.

3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The "limit" indication is 0.75 V, so analog meters must have an accurate low voltage scale. The Simpson's 250 and Sanwa SH-63TRD are examples of passive VOMs that are suitable. Nearly all battery-operated digital multimeters that have a 2 VAC range are suitable (see Figure A).

How to Find a Good Earth Ground

A cold-water pipe is a guaranteed earth ground; the cover-plate retaining screw on most AC outlet boxes is also at earth ground. If the retaining screw is to be used as your earth ground, verify that it is at ground by measuring the resistance between it and a cold-water pipe with an ohmmeter. The reading should be zero ohms.

If a cold-water pipe is not accessible, connect a 60- to 100-watt trouble-light (not a neon lamp) between the hot side of the receptacle and the retaining screw. Try both slots, if necessary, to locate the hot side on the line; the lamp should light at normal brilliance if the screw is at ground potential (see Figure B).

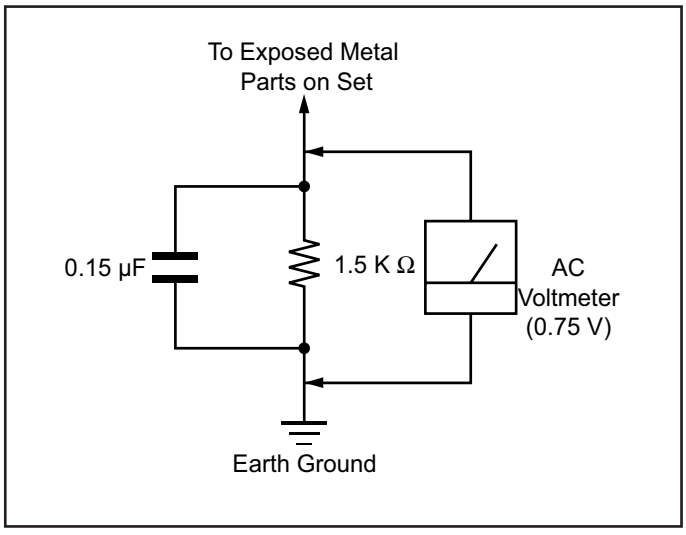


Figure A. Using an AC voltmeter to check AC leakage.

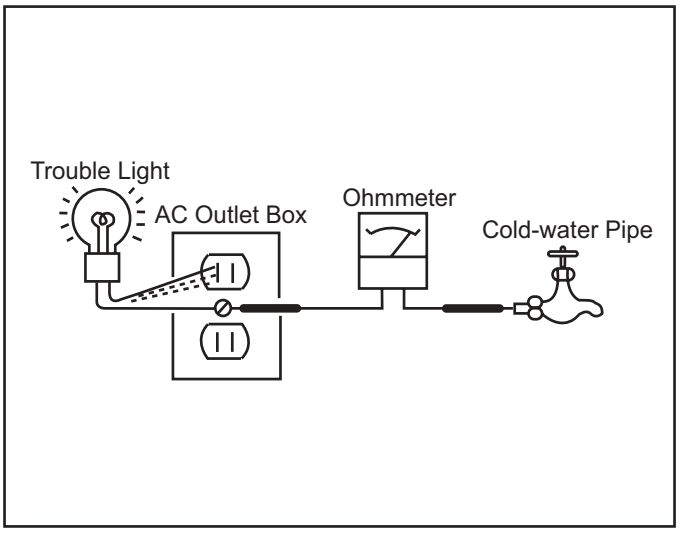


Figure B. Checking for earth ground.

SELF-DIAGNOSTIC FUNCTION

Self Diagnosis Supported model

The units in this manual contain a self-diagnostic function. If an error occurs, the STANDBY/TIMER LED will automatically begin to flash. The number of times the LED flashes translates to a probable source of the problem. A definition of the STANDBY/TIMER LED flash indicators is listed in the instruction manual for the user's knowledge and reference. If an error symptom cannot be reproduced, the Remote Commander can be used to review the failure occurrence data stored in memory to reveal past problems and how often these problems occur.

Diagnostic Test Indicators

When an error occurs, the STANDBY/TIMER LED will flash a set number of times to indicate the possible cause of the problem. If there is more than one error, the LED will identify the first of the problem areas.

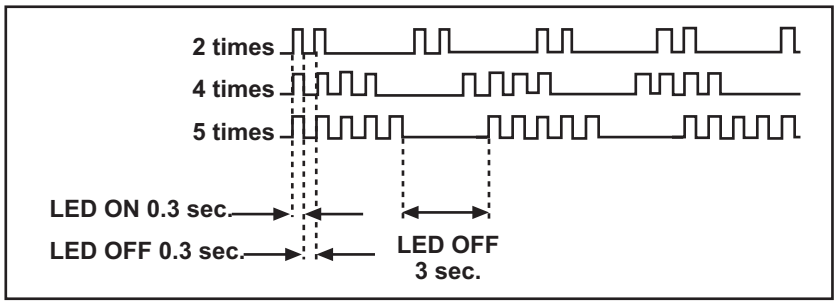
Results for all of the following diagnostic items are displayed on screen. No error has occurred if the screen displays a "0".

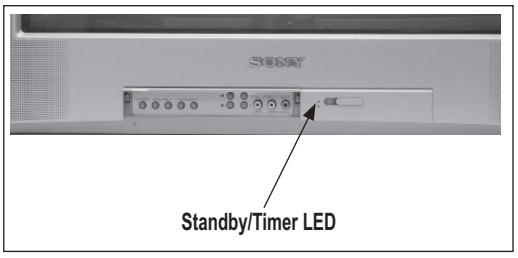
Diagnostic Item Description	No. of times STANDBY/ TIMER lamp flashes	Self-Diagnositc Display/ Diagnostic Result	Probable Cause Location	Detected Symptoms
Power does not turn on	Does not light	————	• Power cord is not plugged in. • Fuse is burned out (F601). (A Board)	• Power does not come on. • No power is supplied to the TV. • AC Power supply is faulty.
+B overcurrent (OCP)*	2 times	2:0 or 2:1	• H.OUT (Q502) is shorted. (A Board) • IC702 is shorted. (C Board)	• Power does not come on. • Load on power line is shorted.
I-Prot	4 times	4:0 or 4:1	• +13V is not supplied. (A Board) • IC561 is faulty. (A Board)	• Has entered standby state after horizontal raster. • Vertical deflection pulse is stopped. • Power line is shorted or power supply is stopped.
IK (AKB)	5 times	5:0 or 5:1	• IC001 is faulty. (MD Board) • Screen (G2) is improperly adjusted.**	• No raster is generated. • CRT Cathode current detection reference pulse output is small.

*If a +B overcurrent is detected, stoppage of the vertical deflection is detected simultaneously. The symptom that is diagnosed first by the mircrocontroller is displayed on the screen.

**Refer to Screen (G2) Adjustments in Section 2-4. of this manual.

Display of Standby/Timer LED Flash Count





Diagnostic Item	Flash Count*
+B Overcurrent	2 times
I-Prot	4 times
IK (AKB)	5 times

*One flash count is not used for self-diagnostic.

Stopping the Standby/Timer LED Flash

Turn off the power switch on the TV main unit or unplug the power cord from the outlet to stop the STANDBY/TIMER LAMP from flashing.

Self-Diagnostic Screen Display

For errors with symptoms such as “power sometimes shuts off” or “screen sometimes goes out” that cannot be confirmed, it is possible to bring up past occurrences of failure on the screen for confirmation.

To Bring Up Screen Test

In standby mode, press buttons on the Remote Commander sequentially, in rapid succession, as shown below:

DISPLAY → Channel 5 → Sound Volume − → POWER

↑ Note that this differs from entering the Service Mode (Sound Volume +).

Self-Diagnostic Screen Display

SELF DIAGNOSTIC		
2:	+B OCP	0
3:	+B OVP	N/A
4:	VSTOP	0
5:	AKB	1
101:	WDT	N/A

Numeral “0” means that no fault was detected.

Numeral “1” means a fault was detected one time only.

Handling of Self-Diagnostic Screen Display

Since the diagnostic results displayed on the screen are not automatically cleared, always check the self-diagnostic screen during repairs. When you have completed the repairs, clear the result display to “0”.

Unless the result display is cleared to “0”, the self-diagnostic function will not be able to detect subsequent faults after completion of the repairs.

Clearing the Result Display

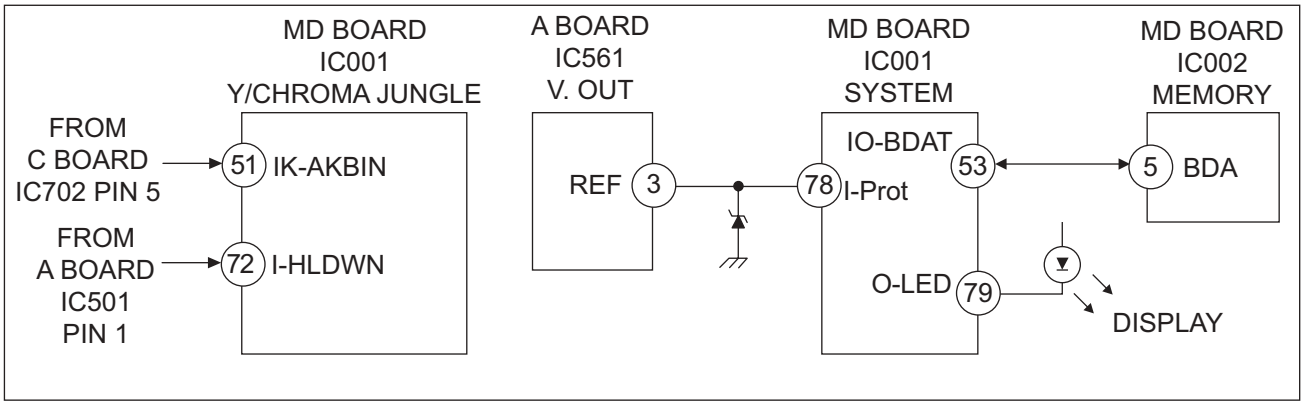
To clear the result display to “0”, press buttons on the Remote Commander sequentially when the diagnostic screen is displayed, as shown below:

Channel 8 → ENTER

Quitting the Self-Diagnostic Screen

To quit the entire self-diagnostic screen, turn off the power switch on the Remote Commander or the main unit.

Self-Diagnostic Circuit



+B overcurrent (OCP)

Occurs when an overcurrent on the +B (135V) line is detected by pin 72 of IC001 (MD Board). If the voltage of pin 72 of IC001 (MD Board) is less than 1V when V.SYNC is more than seven verticals in a period, the unit will automatically turn off.

I-Prot

Occurs when an absence of the vertical deflection pulse is detected by pin 78 of IC001 (MD Board). Power supply will shut down when waveform interval exceeds 2 seconds.

IK (AKB)

If the RGB levels* do not balance within 2 seconds after the power is turned on, this error will be detected by IC001 (MD Board). TV will stay on, but there will be no picture.

*(Refers to the RGB levels of the AKB detection Ref pulse that detects IK).

SECTION 1: DISASSEMBLY

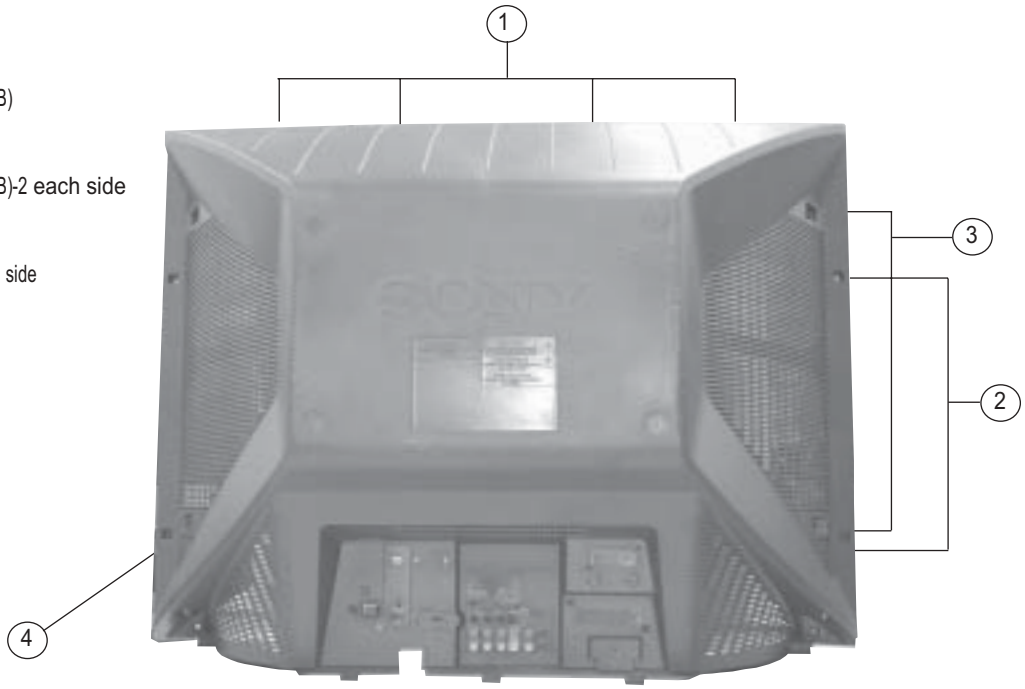
1-1. REAR COVER REMOVAL

① Remove screws from top of cover.
4 Screws SCREW +BVTP 3X12 TYPE2 TT (B)

② Remove screws from sides of cover.
4 Screws SCREW +BVTP 3X12 TYPE2 TT (B)-2 each side

③ Remove screws from sides of cover.
4 SCREW +BVTP 4X16 TYPE2 TT (B) - 2 each side

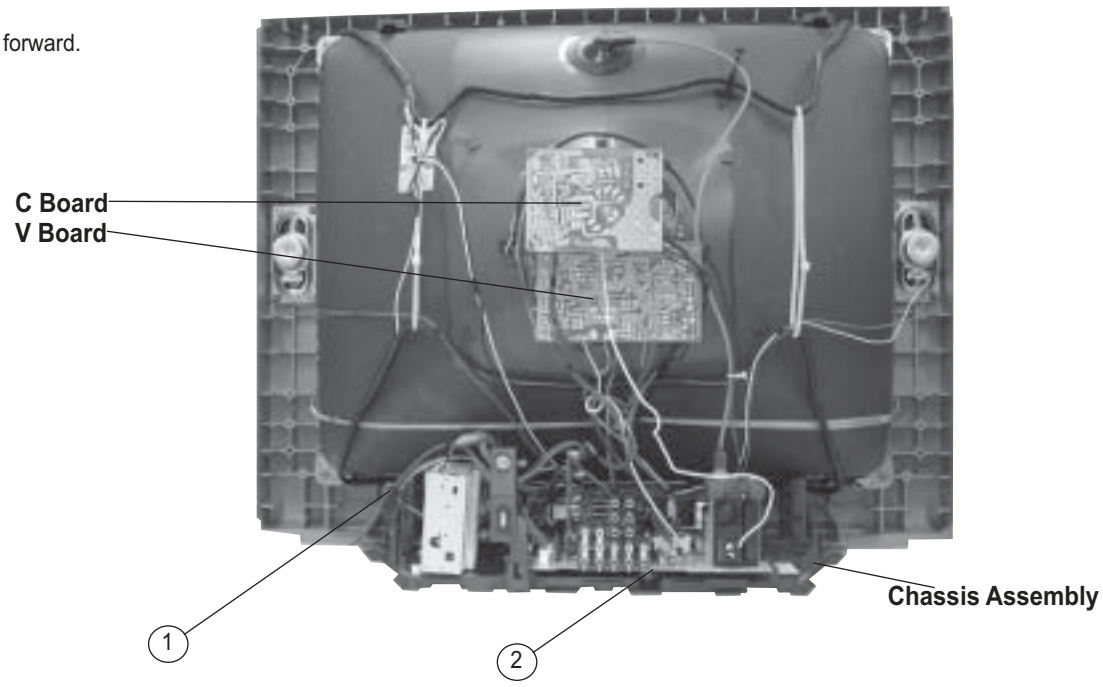
④ Remove rear cover



1-2. CHASSIS ASSEMBLY REMOVAL

① Press on catch tab to release the chassis.

② Gently pull the chassis forward.



1-3. SERVICE POSITION

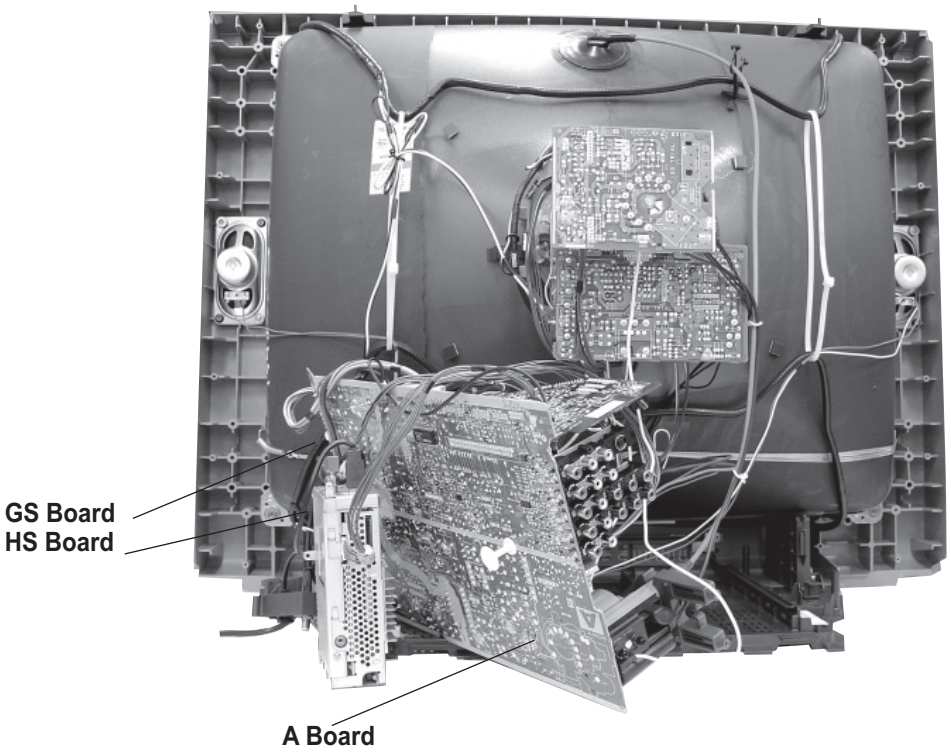
① Disconnect the CN501 cable from the A Board.

② Press on catch tab to release A Board.

③ Gently pull the A Board forward to access the GS and HS Boards.

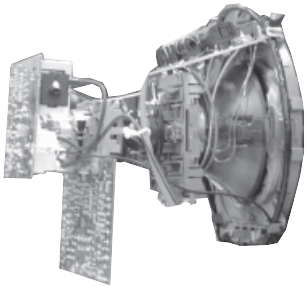
④ Gently continuing pulling the A Board, GS Board and HS Board forward to place in service position.

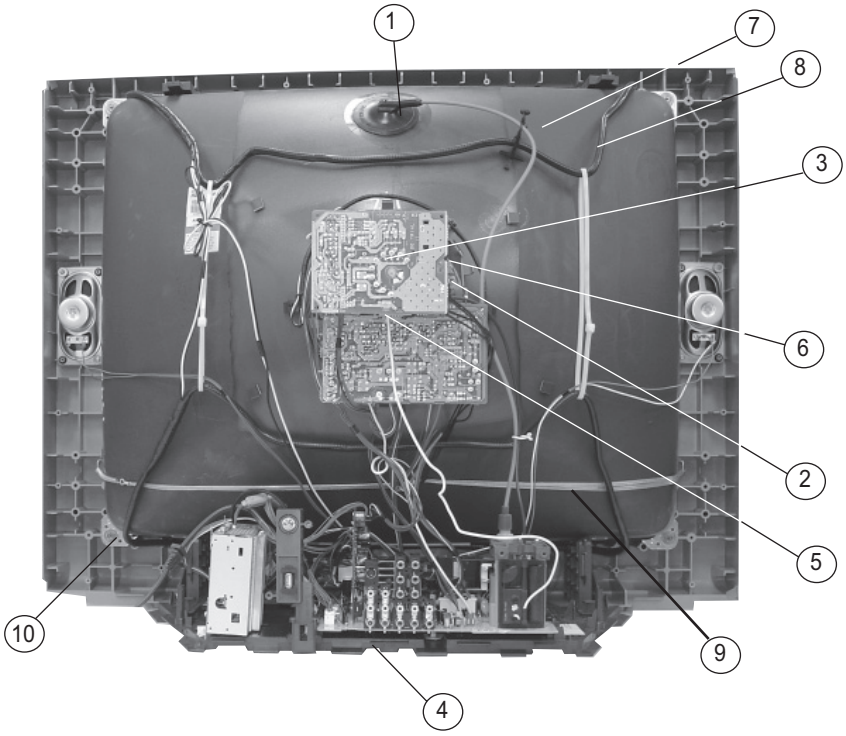
⑤ Reconnect CN501.



1-4. PICTURE TUBE REMOVAL

WARNING: BEFORE REMOVING THE ANODE CAP
High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT before attempting to remove the anode cap. Short between anode and CRT coated earth ground strap.



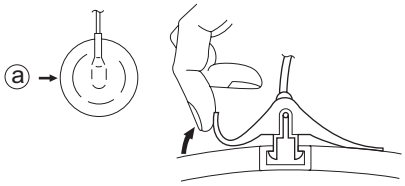


1. Discharge the anode of the CRT and remove the anode cap.
2. Unplug all interconnecting leads from the deflection yoke, neck assembly, degaussing coils and CRT grounding strap.
3. Remove the C Board from the CRT.
4. Remove the chassis assembly.
5. Loosen the neck assembly fixing screw and remove.
6. Loosen the deflection yoke fixing screw and remove.
7. Place the set with the CRT face down on a cushion and remove the degaussing coil holders.
8. Remove the degaussing coils.
9. Remove the CRT grounding strap and spring tension devices.
10. Unscrew the four CRT fixing screws [located on each CRT corner] and remove the CRT [Take care not to handle the CRT by the neck].

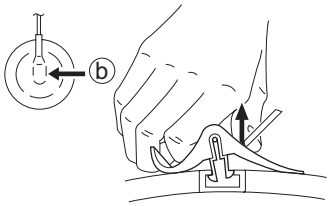
ANODE CAP REMOVAL PROCEDURE

WARNING: High voltage remains in the CRT even after the power is disconnected. To avoid electric shock, discharge CRT **before** attempting to remove the anode cap. Short between anode and coated earth ground strap of CRT.
NOTE: After removing the anode cap, short circuit the anode of the picture tube and the anode cap to either the metal chassis, CRT shield, or carbon painted on the CRT.

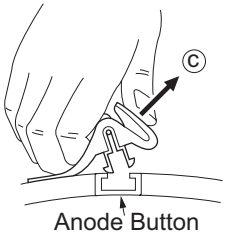
REMOVAL PROCEDURES



Turn up one side of the rubber cap in the direction indicated by arrow ⓐ .



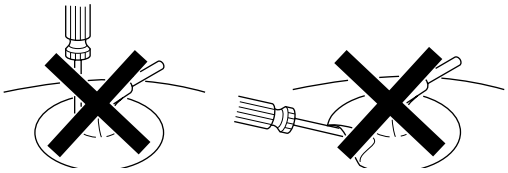
Use your thumb to pull the rubber cap firmly in the direction indicated by arrow ⓑ .



When one side of the rubber cap separates from the anode button, the anode cap can be removed by turning the rubber cap and pulling it in the direction of arrow ⓒ .

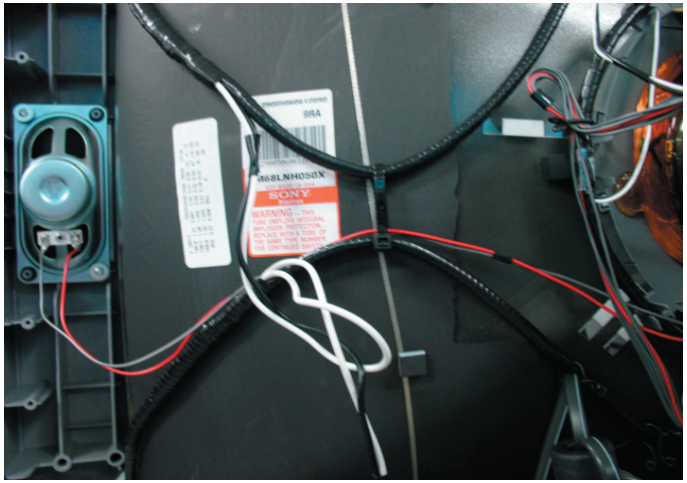
HOW TO HANDLE AN ANODE CAP

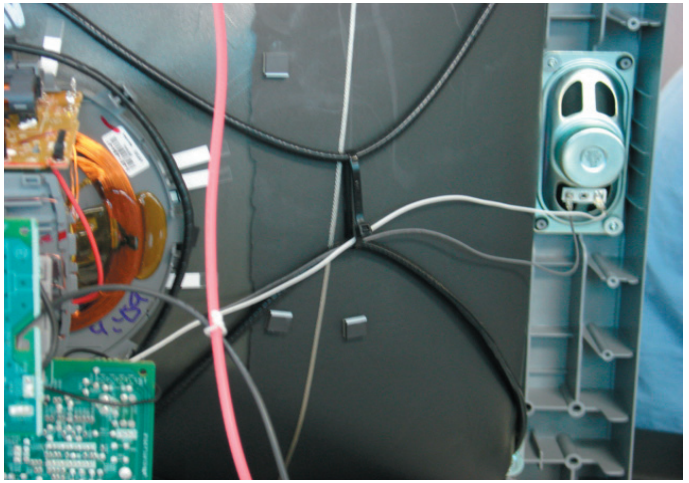
1. Do not use sharp objects which may cause damage to the surface of the anode cap.
2. To avoid damaging the anode cap, do not squeeze the rubber covering too hard. A material fitting called a shatter-hook terminal is built into the rubber.
3. Do not force turn the foot of the rubber cover. This may cause the shatter-hook terminal to protrude and damage the rubber.



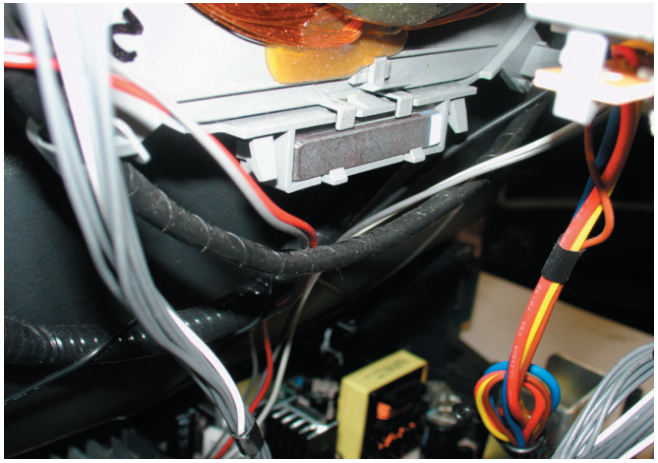
CABLE WIRE DRESSING

27FS130





Dress Right & left speaker wire through DGC's tie wrap as picture shows.



Dress Right & Left speaker wire through Rotation Coil

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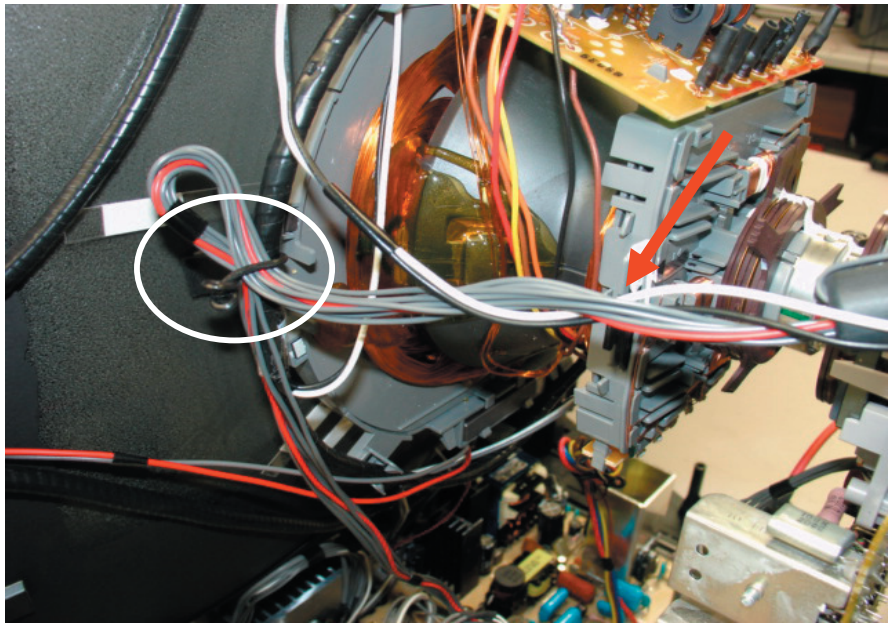
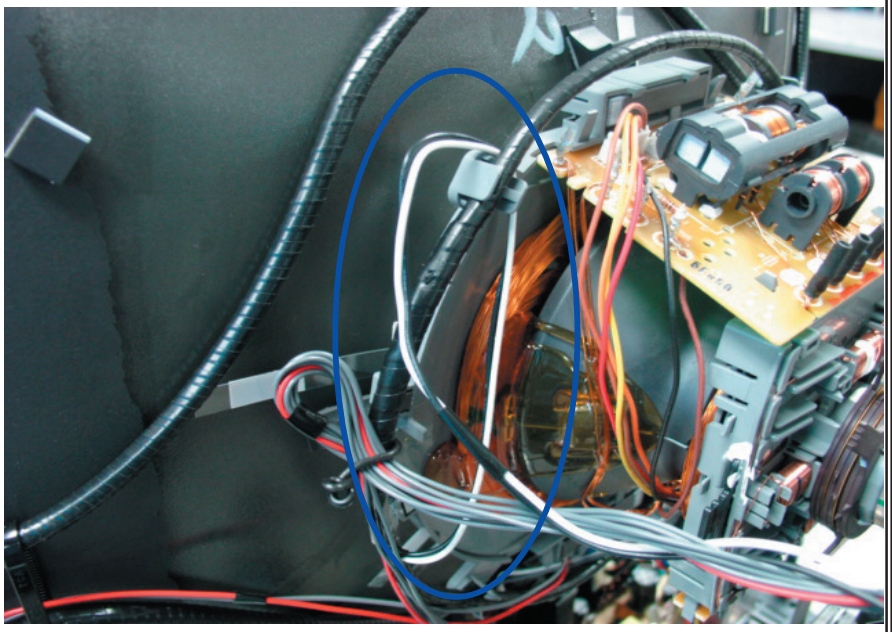


Fix RGB harness (MD/CN301~ C/CN705) to rotation coil using a 9mm purse lock (3-703-982-02).
Dress RGB & Rotation coil lead wire harnesses interlace twice as picture shows.



Install Rotation coil Harness (2P) as show in picture, make a turn.

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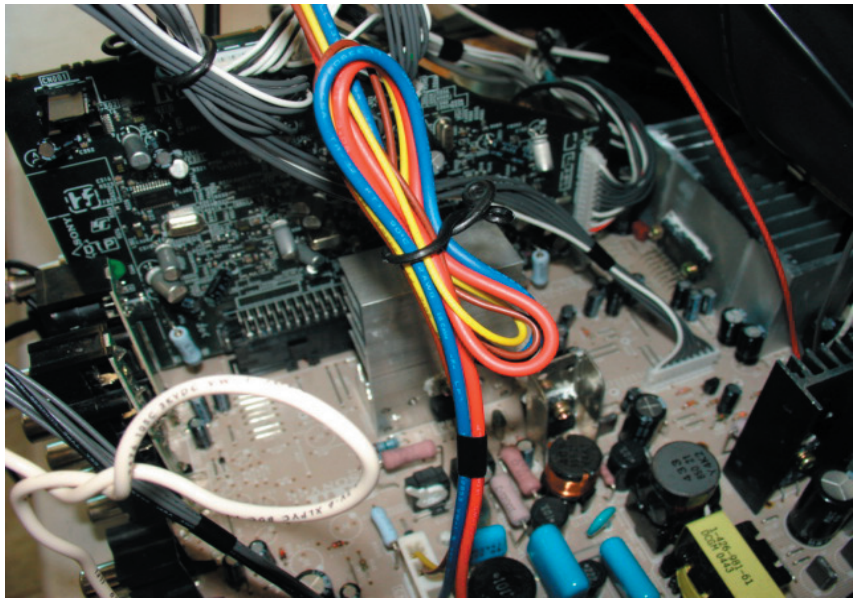
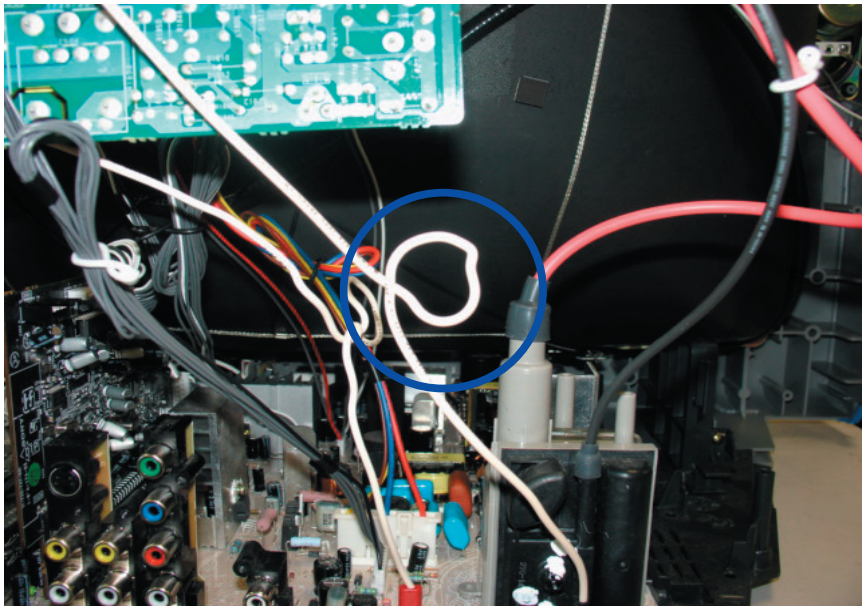


Dress DY's lead wire using a 9mm purse lock (3-703-982-02).



Dress G2 wire twist once as picture shown, do not over stress wire.

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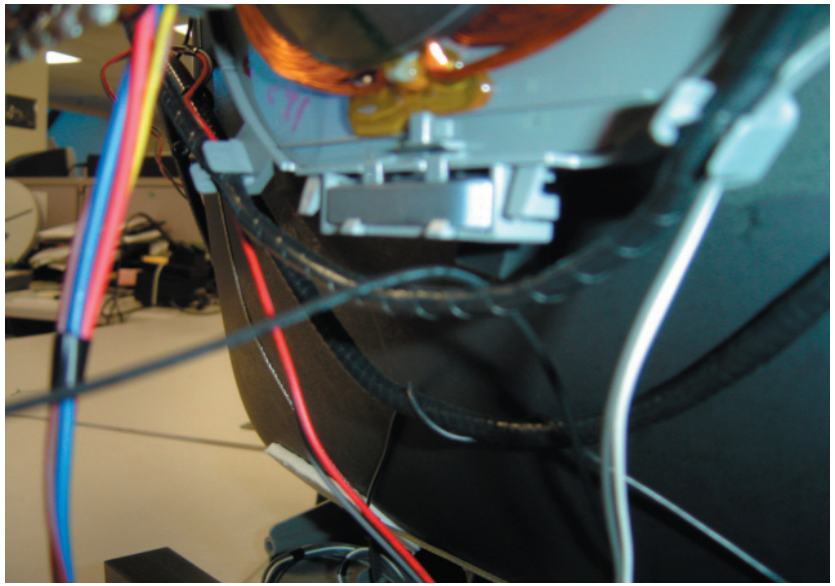
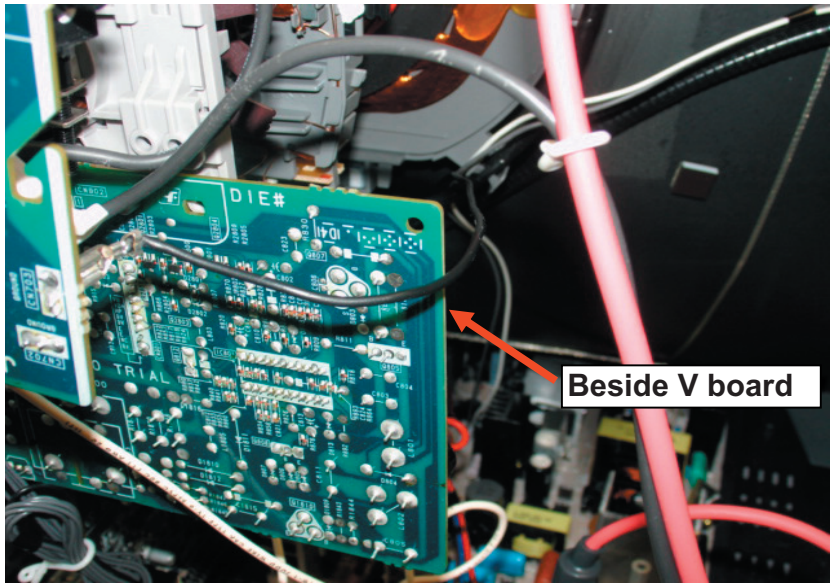


Dress CRT ground wire through rotation coil.



Pass CRT ground wire beside V board as picture shows.

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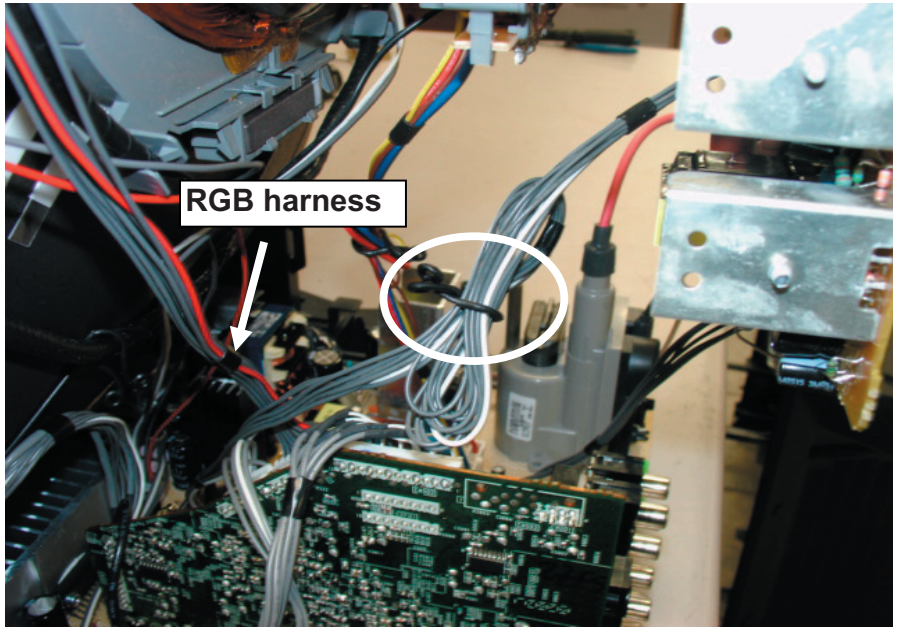
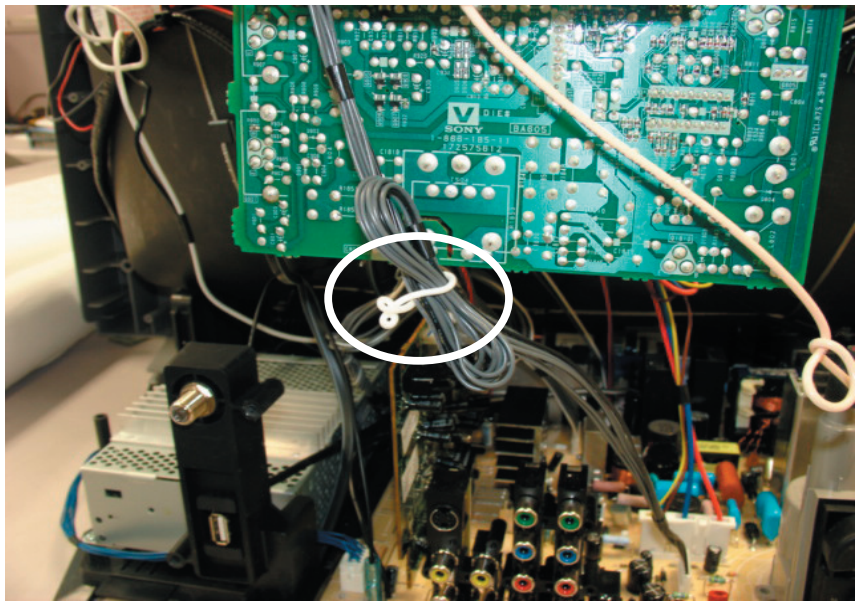


Dress VM harness (A/CN502~V/CN901) using a 9mm purse lock (3-703-982-02) & pass beside RGB harness (MD/CN301~ C/CN705) as shown in picture.



Dress Heater (A/CN503~C/CN706) harness using a 5mm purse lock (3-703-981-02) as picture shows.

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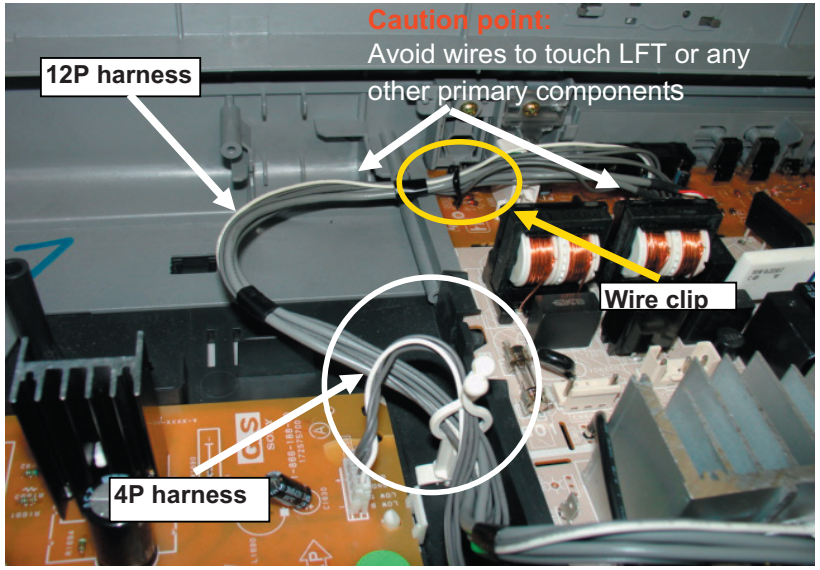

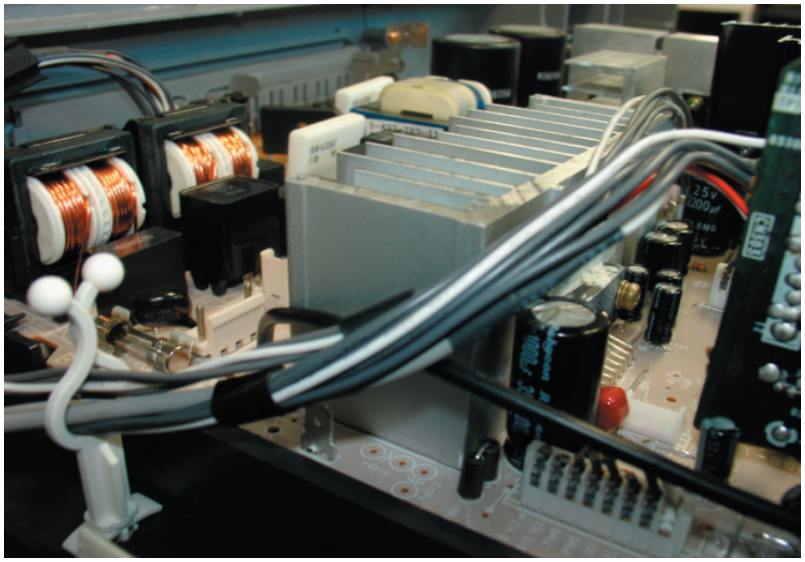

- Fix 12P harness (HS/CN1004~MD/CN303) using a wire clip (4-051-925-01) & purse lock (4-072-499-11).
- Dress 4P harness (A/CN201~GS/CN1650) using a purse lock as picture shown.

Pass 12P (HS/CN1004~MD/CN303) & 4P (A/CN201~GS/CN1650) harnesses between audio heatsink & MD board as shown in picture.

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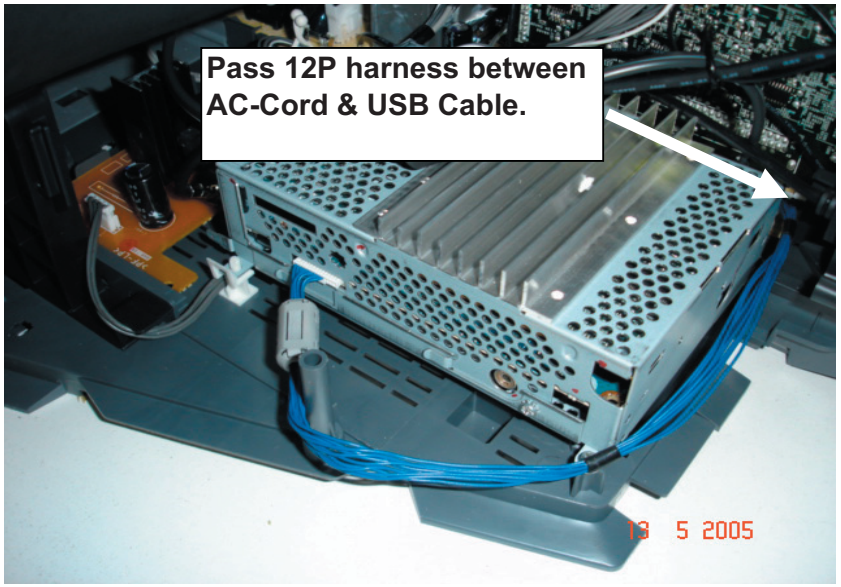
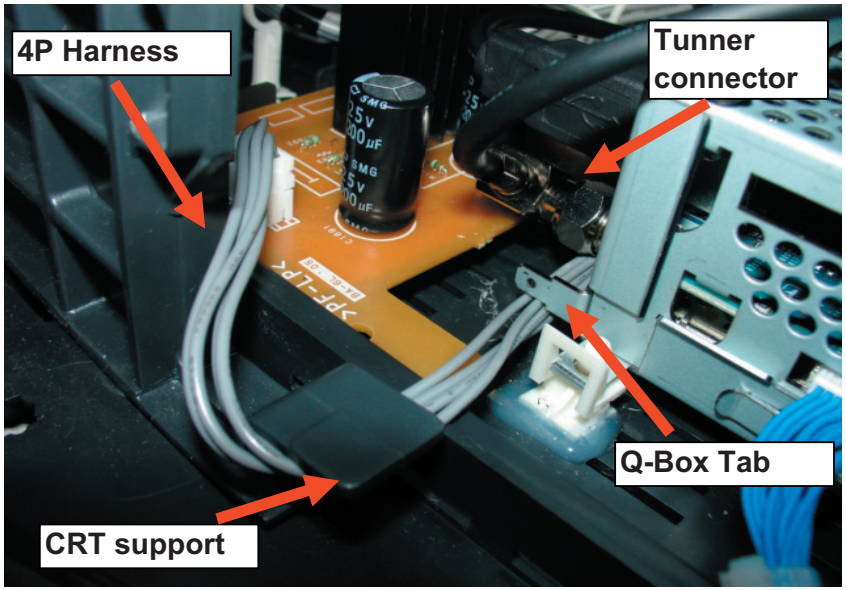
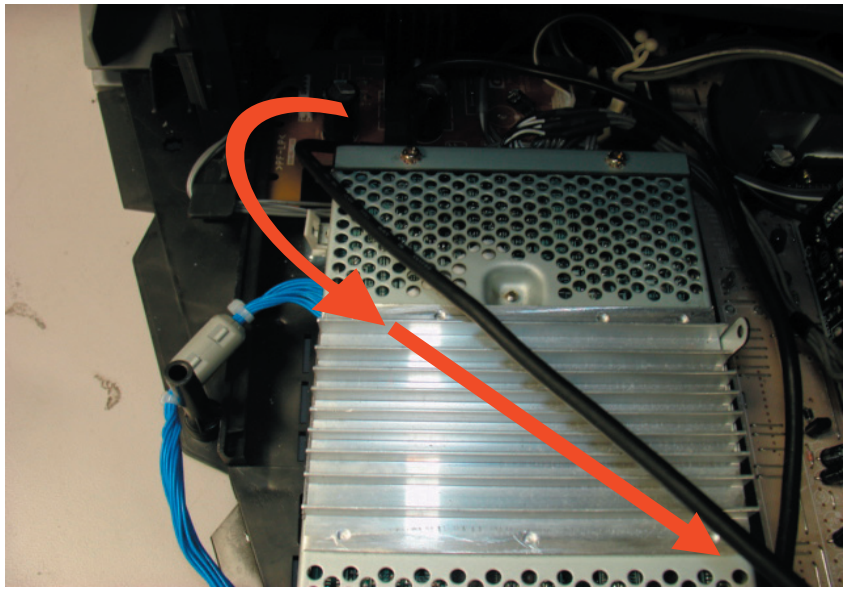


- Pass 12P harness (A/CN101~Q-BOX) around Q-BOX as shown in picture.

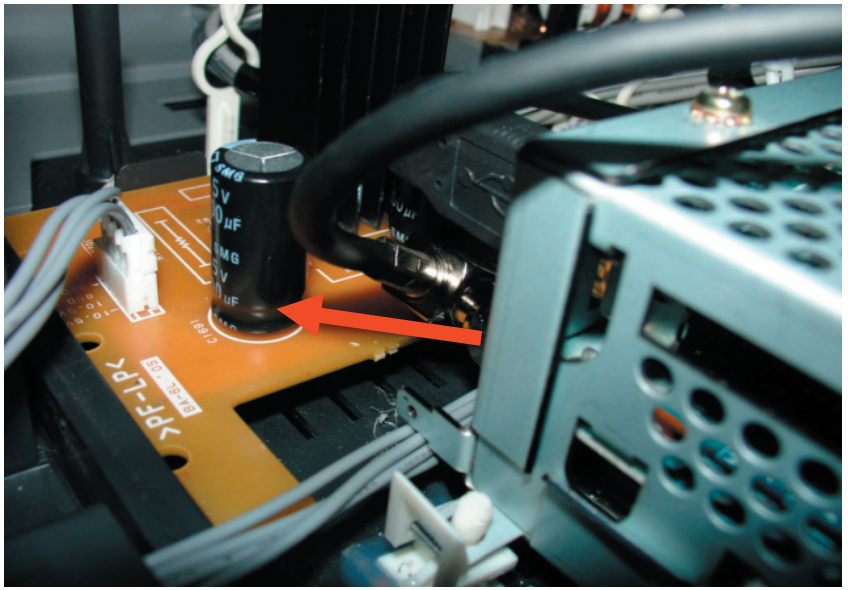


- Dress 4P (10.5V) harness (GS/CN1670~Q-BOX) pass under Tunner connector, Q-Box tab & CRT support as shown in picture.

27FS130



- Dress Tunner cable as shown in picture.



- Tunner connector should be as shown in picture.

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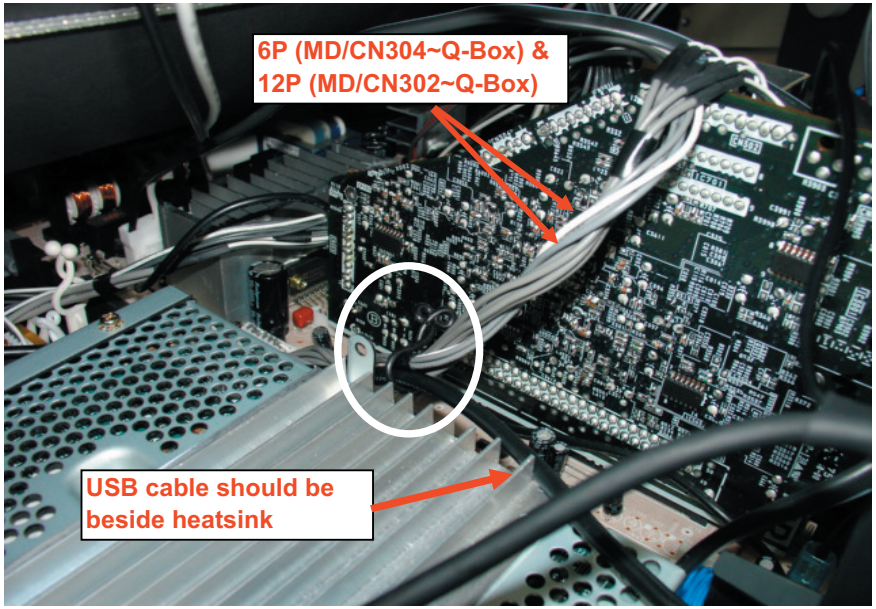
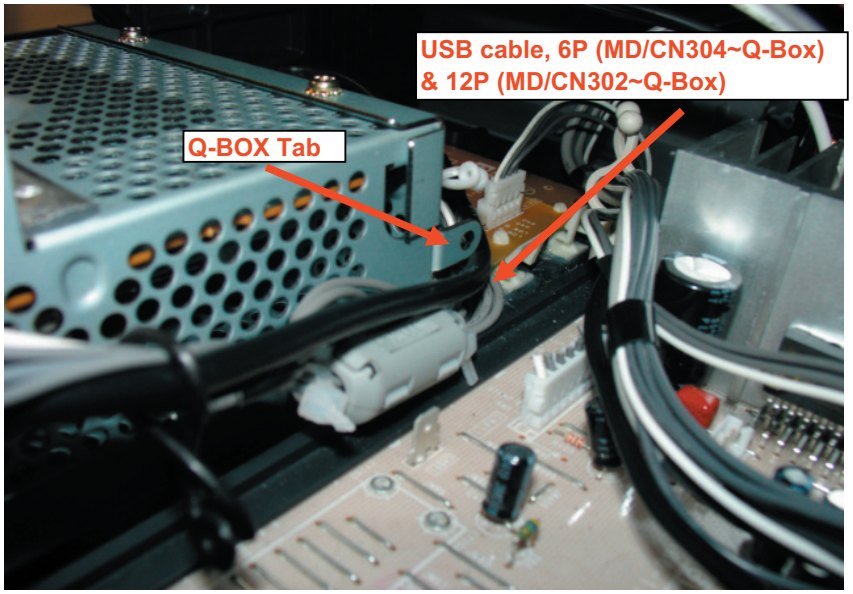


- Interlace 6P (MD/CN304~Q-Box) & 12P (MD/CN302~Q-Box) harnesses 7 times.
- Dress 6P, 12P & USB cable using a 9mm purse lock (3-703-982-02) as shown in picture



- Dress USB Cable, 6P (MD/CN304~Q-Box) & 12P (MD/CN302~Q-Box) harnesses under Q-BOX Tab as shown in picture

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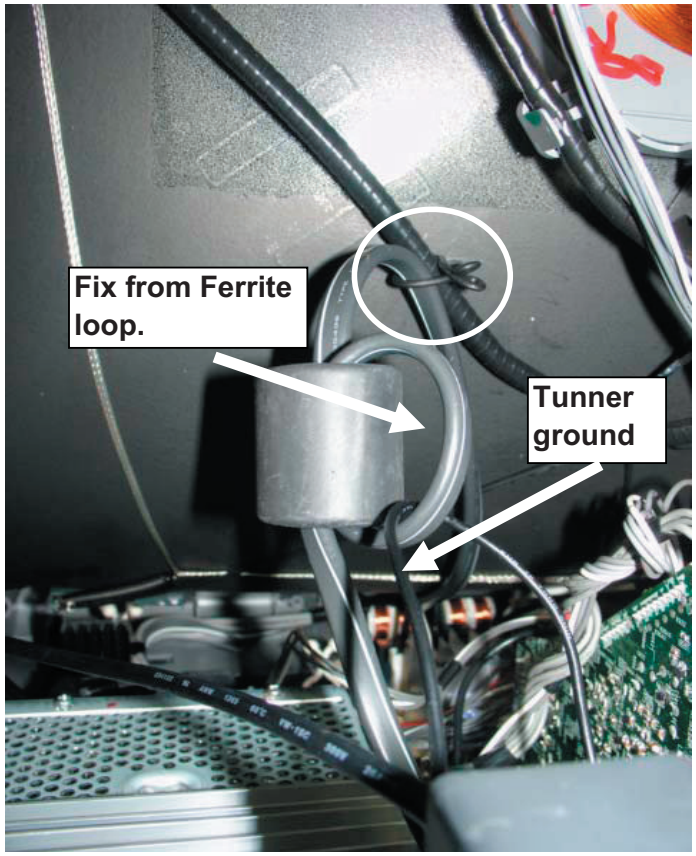
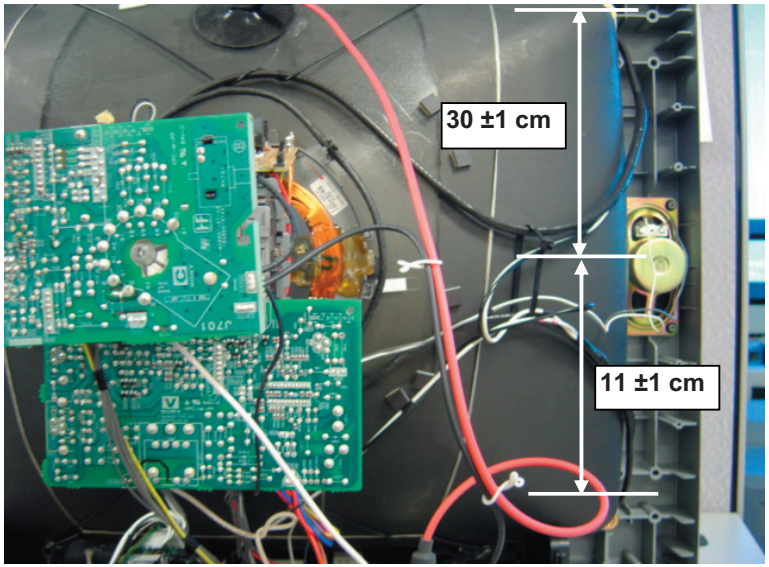


-Fix AC-Cord to DGC using a purse lock (3-703-982-02).
-Pass Tunner ground through ferrite loop as shown in picture.



Dress focus lead and HV cable together using 5mm purse lock (3-703-981-02)

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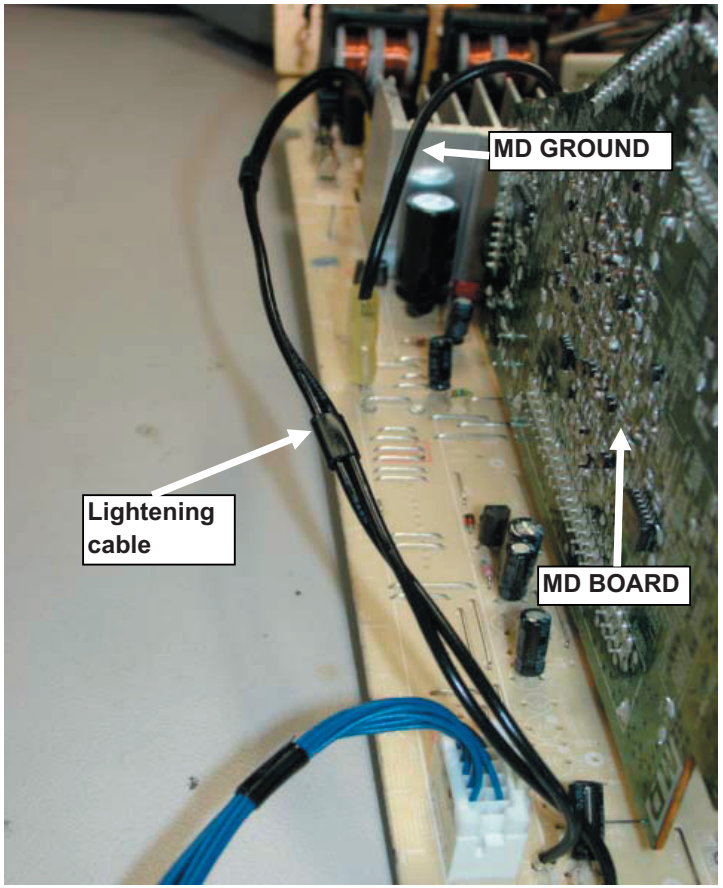

Lightening cable should be beside MD board & MD ground as shown in picture.

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SECTION 2: SET-UP ADJUSTMENTS

The following adjustments should be made when a complete realignment is required or a new picture tube is installed.

These adjustments should be performed with rated power supply voltage unless otherwise noted.

Set the controls as follows unless otherwise noted:
VIDEO MODE: Pro
PICTURE CONTROL: Normal
BRIGHTNESS CONTROL: Normal

Perform the adjustments in order as follows:

1. Beam Landing
2. Convergence
3. Focus
4. Screen (G2)
5. White Balance

Note Test Equipment Required:

1. Color Bar Pattern Generator
2. Degausser
3. DC Power Supply
4. Digital Multimeter

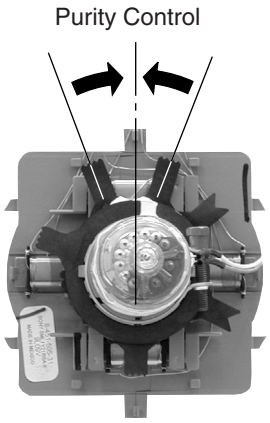
2-1. BEAM LANDING

Before beginning adjustment procedure:

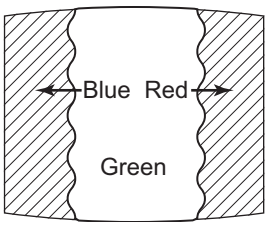
1. Feed in the white pattern signal.

Adjustment Procedure

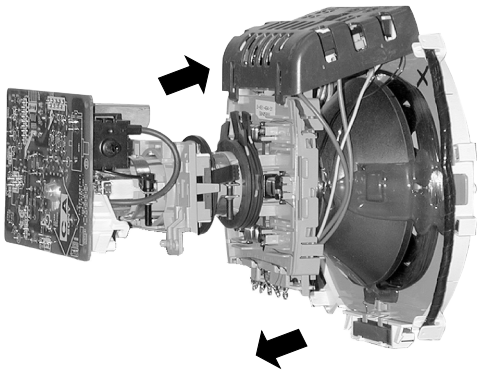
1. Input a raster signal with the pattern generator.
2. Loosen the deflection yoke mounting screw, and set the purity control to the center as shown below:

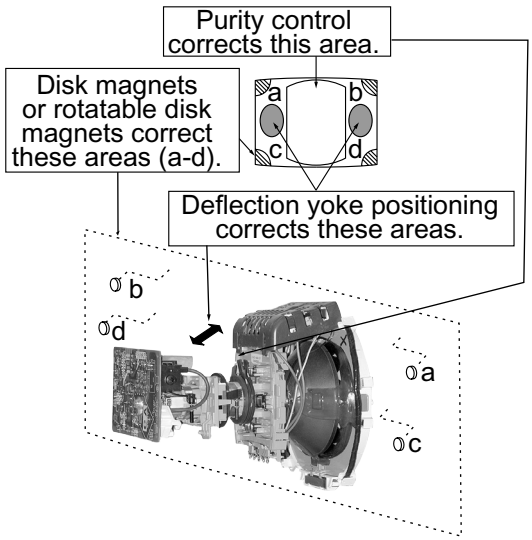


3. Turn the raster signal of the pattern generator to green.
4. Move the deflection yoke backward, and adjust with the purity control so that green is in the center and red and blue are even on both sides.



5. Move the deflection yoke forward, and adjust so that the entire screen becomes green.
6. Switch over the raster signal to red and blue and confirm the condition.
7. When the position of the deflection yoke is determined, tighten it with the deflection yoke mounting screw.
8. If landing at the corner is not right, adjust by using the disk magnets.





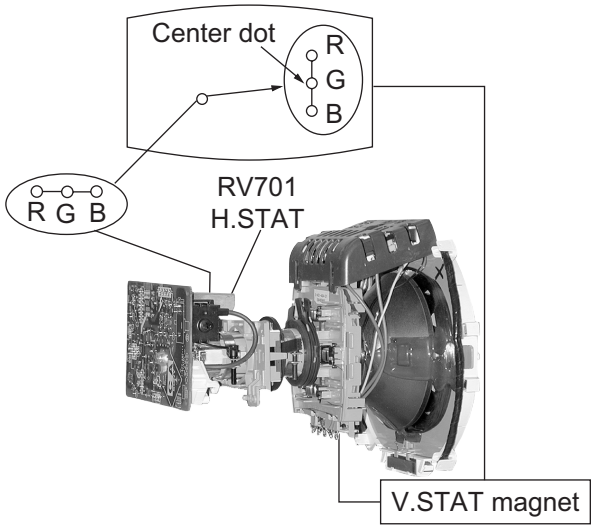
2-2. CONVERGENCE

Before starting convergence adjustments:

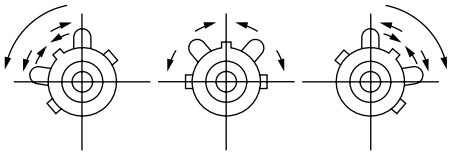
1 Perform FOCUS, VLIN and VSIZE adjustments.
2. Set BRIGHTNESS control to minimum.
3. Feed in dot pattern.

Vertical Static Convergence

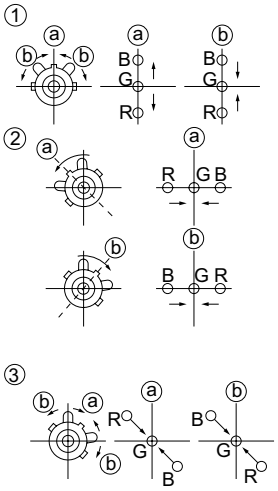
1. Adjust V. STAT magnet to converge red, green and blue dots in the center of the screen.



2. Tilt the V. STAT magnet and adjust static convergence to open or close the V. STAT magnet.



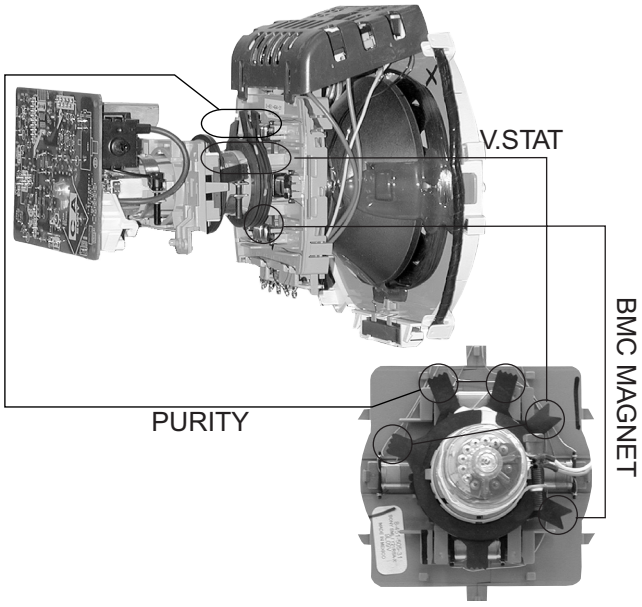
When the V. STAT magnet is moved in the direction of arrow a and b, red, green, and blue dots move as shown below:



Horizontal Static Convergence

If the blue dot does not converge with the red and green dots, perform the following:

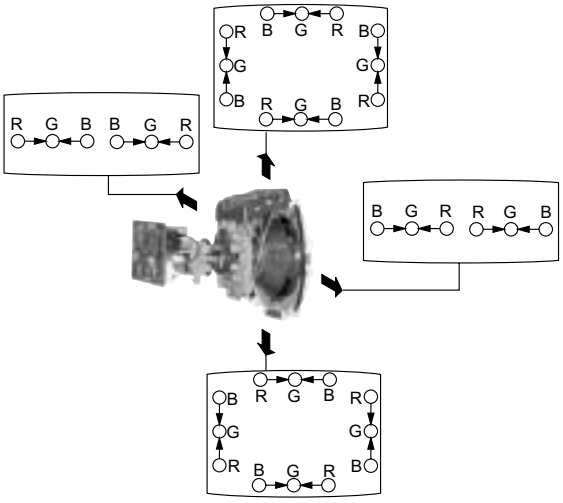
1. Move H STAT VR magnet (a) to correct insufficient H.Static convergence.



Dynamic Convergence Adjustment

Before performing this adjustment, perform Horizontal and Vertical Static Convergence Adjustment.

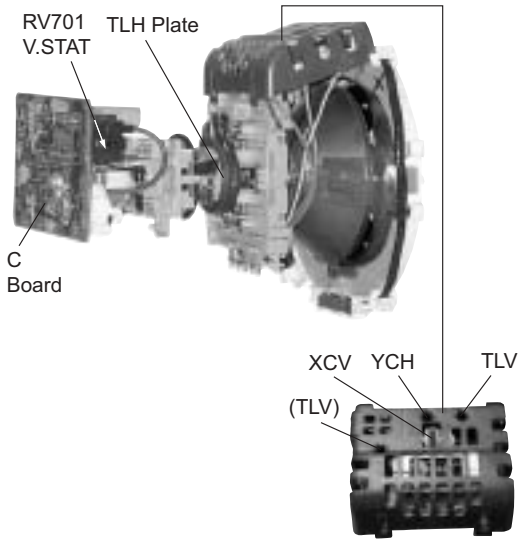
1. Slightly loosen deflection yoke screw.
2. Remove deflection yoke spacers.
3. Move the deflection yoke for best convergence as shown below:

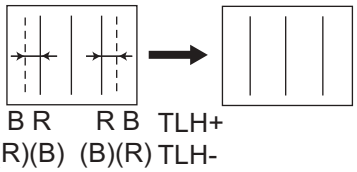


4. Tighten the deflection yoke screw.
5. Install the deflection yoke spacers.

TLH Plate Adjustment

1. Input crosshatch pattern.
2. Adjust PICTURE QUALITY to standard, PICTURE and BRIGHTNESS to 50%, and OTHER to standard.
3 Adjust the Horizontal Convergence of red and blue dots by tilting the TLH plate on the deflection yoke.

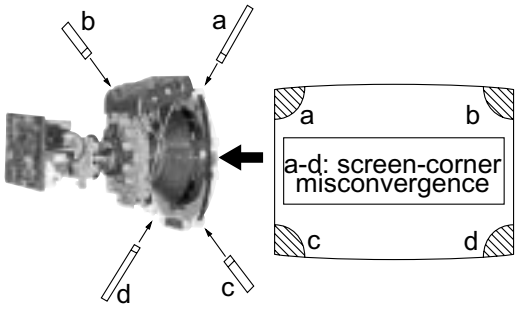




4. Adjust XCV core to balance X axis.
5. Adjust YCH VR to balance Y axis.
6. Adjust vertical red and blue convergence with V.TILT (TLV VR.)
   Note: Perform adjustment 3-6 while tracking items 1 and 2.

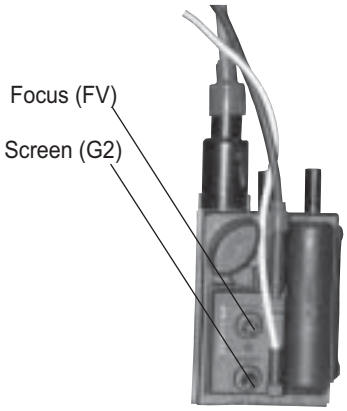
Screen-Corner Convergence

1. Affix a permalloy assembly corresponding to the misconverged areas:



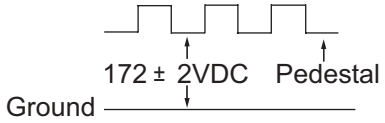
2-3. FOCUS

1. Adjust FOCUS control for best pictures.



2-4. SCREEN (G2)

1. Input a dot pattern.
2. Set the PICTURE and BRIGHTNESS controls at minimum and COLOR control at normal.
3. Adjust SBRT, GCUT, BCUT in service mode with an oscilloscope as shown below so that voltages on the red, green, and blue cathodes are 172 ± 2VDC.



4. Observe the screen and adjust SCREEN (G2) VR in FBT to obtain the faintly visible background of dot signal.

SECTION 3: SAFETY RELATED ADJUSTMENTS

3-1. ⋈ R530, R531 CONFIRMATION METHOD (HV HOLD-DOWN CONFIRMATION) AND READJUSTMENTS

The following adjustments should always be performed when replacing the following components which are marked with ◪ on the schematic diagram:

Part Replaced (◪)	Adjustment (⋈)
C531, C532, D519, D520, D521, IC501, IC600, PH602, R529, R530, R531, R532, R533, R550, T503 (FBT), T504 (DFT)	HV HOLD-DOWN R530, R531

Preparation Before Confirmation

1. Using a Variac, apply AC input voltage: 120 +/- 2.0 VAC.
2. Turn the POWER switch ON.
3. Input a white signal and set the PICTURE and BRIGHT controls to maximum.
4. Confirm that the voltage of more than 23.0 VDC appears between TP85 and ground on the A Board.

Hold-Down Operation Confirmation

1. Connect the current meter between Pin 11 of the FBT (T503) and the PWB land where Pin 11 would normally attach. (See Figure 1).
2. Input a dot signal and set PICTURE and BRIGHTNESS to minimum: IABL = 2175 + 100/ -325 µA.
3. Confirm the voltage of A Board TP91 is 134.6 ± 1.0 VDC.
4. Connect the digital voltmeter and the DC power supply to TP85 and ground. (See Figure 1).
5. Increase the DC power voltage gradually until the picture blanks out.
6. Turn DC power source off immediately.
7. Read the digital voltmeter indication:
   Standard = 24.78 + 0.0/ - 0.1 VDC.
8. Input a white signal and set PICTURE and BRIGHTNESS to maximum: IABL = 2175 + 100/ -325 µA.
9. Repeat steps 4 to 7.

Hold-Down Readjustment

If the setting indicated in Step 2 of Hold-Down Operation Confirmation cannot be met, readjustment should be performed by altering the resistance value of R530, R531 component marked with ⋈.

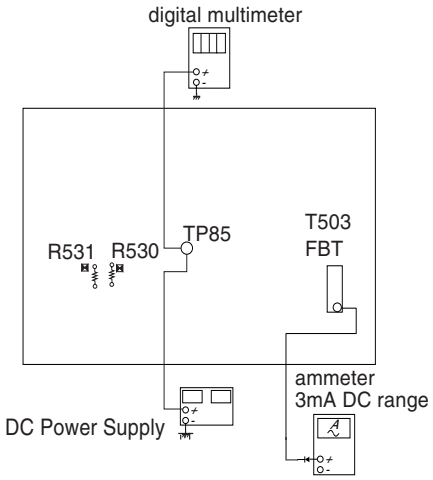


Figure 1

3-2. B+ VOLTAGE CONFIRMATION AND ADJUSTMENT

Always perform the following adjustments when replacing the following components, which are marked with ◪ on the schematic diagram on the A Board:

Adjustment (◪)
A BOARD IC600, PH602

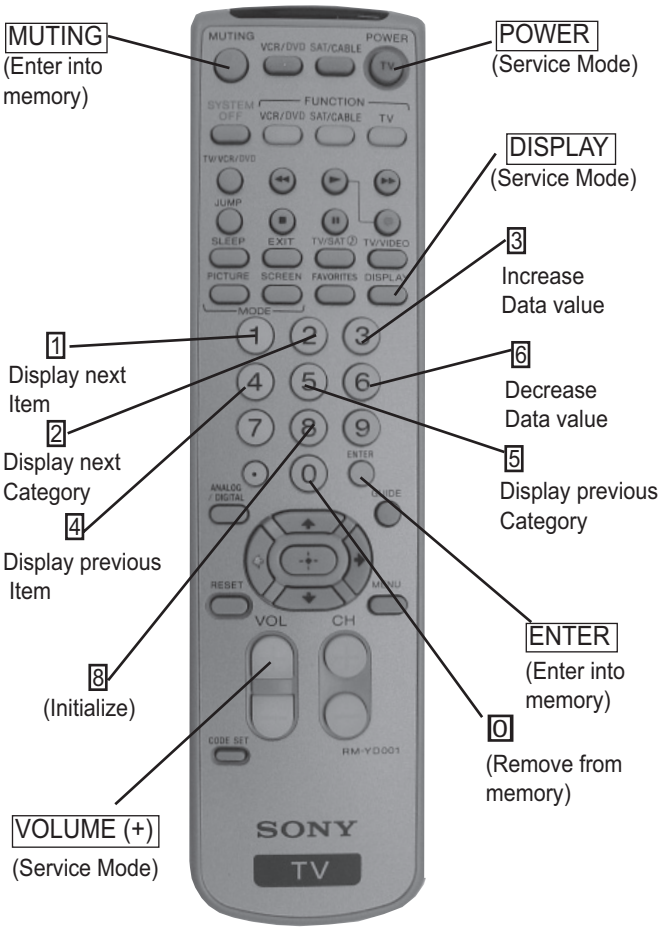
1. Using a Variac, apply AC input voltage: 130 + 2.0/-0.0 VAC
2. Input a monoscope signal.
3. Set the PICTURE control and the BRIGHT control to minimum.
4. Confirm the voltage on A Board between TP23 and ground is less than 136.5 VDC.
5. If step 4 is not satisfied, replace R530 and R531 on A Board and repeat the above steps.

SECTION 4: CIRCUIT ADJUSTMENTS

Electrical Adjustments by Remote Commander

Use the Remote Commander (RM-YD001) to perform the circuit adjustments in this section.
Test Equipment Required: 1. Pattern generator 2. Frequency counter 3. Digital multimeter 4. Audio oscillator

4-1. REMOTE ADJUSTMENT BUTTONS AND INDICATORS

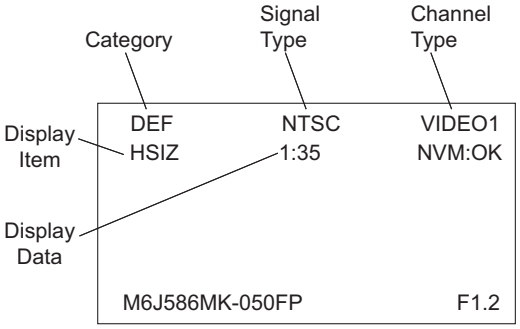


RM-YD001

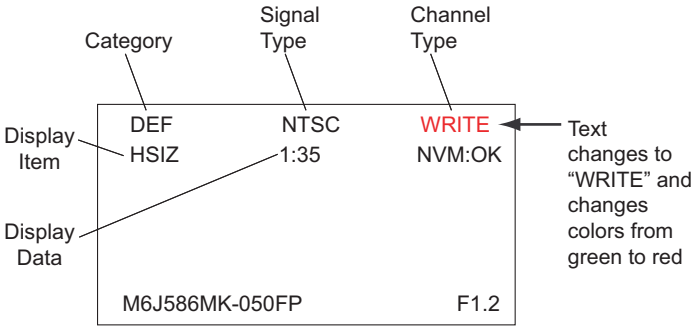
4-2. ACCESSING THE SERVICE ADJUSTMENT MODE

1. Standby mode (Power off).
2. Press the following buttons on the remote commander within a second of each other:
   DISPLAY + POWER → Channel 5 → Sound Volume + →

The screen displays the first service data category item.



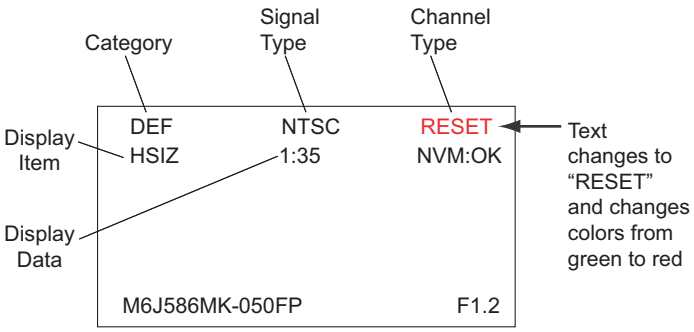
1. On the Remote Commander press 2 or 5 to select the category.
2. Press 1 or 4 to select the item.
3. Press 3 or 6 to change the data value.
4. Press MUTING then ENTER to write into memory.



Service Adjustment Mode Memory

Use the following procedure when adjusting IDs 0-7 and when replacing and adjusting IC002.

1. Access Service Adjustment Mode.
2. Press 8 then ENTER on the Remote Commander to initialize.



The TV powers off after completing the initialization process.

4-3. CONFIRMING SERVICE ADJUSTMENT CHANGES

1. After completing adjustments, pull out the plug from the AC outlet, then replace the plug in the AC outlet again.
2. Access Service Adjustment Mode.
3. Using the buttons on the Remote Commander, locate the adjusted items again to confirm they were adjusted.

4-4. WHITE BALANCE ADJUSTMENTS

1. Input an entire white signal with burst.
2. Access Service Adjustment Mode.
3. Set the PICTURE and BRIGHTNESS to minimum.
4. Adjust with SBRT if necessary.
5. Press 2 or 5 to select the VP1 category.
6. Press 1 or 4 to display the GCUT item.
7. Press 3 or 6 to adjust for the best white balance.
8. Press 1 or 4 to display the BCUT item.
9. Press 3 or 6 to adjust for the best white balance.
10. Set the PICTURE and BRIGHTNESS to maximum.
11. Press 1 or 4 to display the GDRV item.
12. Press 3 or 6 to adjust for the best white balance.
13. Press 1 or 4 to display the BDRV item.
14. Press 3 or 6 to adjust for the best white balance.
15. Press MUTING then ENTER to save into the memory.

4-5. A BOARD ADJUSTMENTS

H. Frequency (Free Run) Check

1. Input a TV mode (RF) with no signal.
2. Connect a frequency counter to base of Q501 (TP-25 H. DRIVE) on the A Board.
3. Check H. Frequency for 15735 ± 200 Hz.

V. Frequency (Free Run) Check

1. Select video 1 with no signal input.
2. Set the conditions for a standard setting.
3. Connect the frequency counter to TP-27 (V OUT) or CN501 pin ⑥ (V DY+) and ground on the A Board .
4. Check that V. Frequency shows 60 ± 4 Hz.

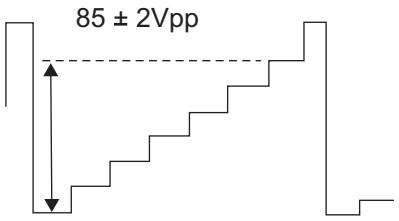
Drive (SCON)

1. Input a color-bar signal and set the level to 75%.
2. Set in Pro mode + PICTURE MAX.
3. Access Service Adjustment Mode.
4. Press 2 or 5 to select the VP1 category.
5. Press 1 or 4 to display the GON item.
6. Press 3 or 6 to adjust to 0.
7. Press 1 or 4 to display the BON item.
8. Press 3 or 6 to adjust to 0.

   Note: Leave RON set to “1”.

R ON:	ON	(1)
G ON:	OFF	(0)
B ON:	OFF	(0)

9. Connect an oscilloscope probe to C Board, CN705 pin3 (KR).
10. Press 1 or 4 to display the SCON item.
11. Press 3 or 6 to adjust the value of SCON to 85 ± 2Vpp.



12. Repeat steps 5 thru 8 to reset GON and BON values to “1”.

R ON:	ON	(1)
G ON:	ON	(1)
B ON:	ON	(1)

13. Press MUTING then ENTER to write into memory.

Display Position Adjustment (DISP)

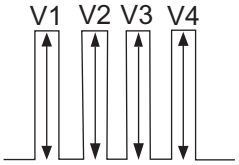
1. Input a color-bar signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the Microprocessor category.
4. Press 1 or 4 to display the DISP item.
5. Press 3 or 6 to adjust characters to the center.
6. Press MUTING then ENTER to write into memory.
7. Check to see if the text is displayed on the screen.

Sub Bright Adjustment (SBRT)

1. Input a monoscope signal.
2. Access Service Adjustment Mode.
3. Set the PICTURE and BRIGHTNESS to minimum.
4. Press 2 or 5 to select the VP1 category.
5. Press 1 or 4 to display the SBRT item.
6. Press 3 or 6 to obtain a faintly visible 20 IRE mark, after that increase +3 steps.
7. Press MUTING then ENTER to write into memory.

Sub Hue, Sub Color Adjustment (SHUE, SCOL)

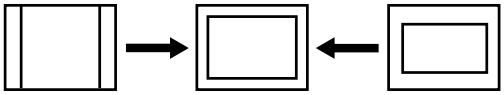
1. Input color-bar signal at 75%.
2. Access Service Adjustment Mode.
3. Set (PIC) to Max and (COL) to 50%.
4. Connect an oscilloscope probe to C Board, CN705 pin ④ (Blue Out).
5. Press 2 or 5 to select the VP1 category.
6. Press 1 or 4 to display the SHUE or SCOL item.
7. While showing the SHUE item, adjust the waveform by pressing 3 or 6 until the second and third bars show the same level (V2 = V3 < 0.15Vp-p). Set Sub Hue -2 Step.
8. While showing the SCOL item, adjust the waveform by pressing 3 or 6 until the first and fourth bars show the same level (V1 = V4 < 0.15Vp-p). Set Sub Col + 2 Step.



9. Press MUTING then ENTER to write into memory.

V. Size Adjustment (VSIZ)

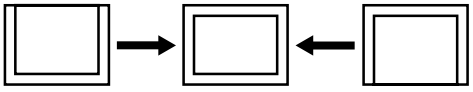
1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VSIZ item.
5. Adjust value of VSIZ by pressing 3 or 6 for the best vertical size.
6. Press MUTING then ENTER to write into memory.



V. Center Adjustment (VPOS)

Perform this adjustment after performing H. Frequency (Free Run) Check.

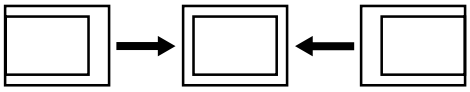
1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VPOS item.
5. Adjust value of VPOS by pressing 3 or 6 for the best vertical center.
6. Press MUTING then ENTER to write into memory.



H. Center Adjustment (HPOS)

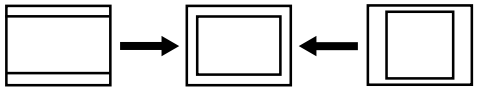
Perform this adjustment after performing H. Frequency (Free Run) Check.

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the HPOS item.
5. Adjust the value of HPOS by pressing 3 or 6 for the best horizontal center.
6. Press MUTING then ENTER to write into memory.



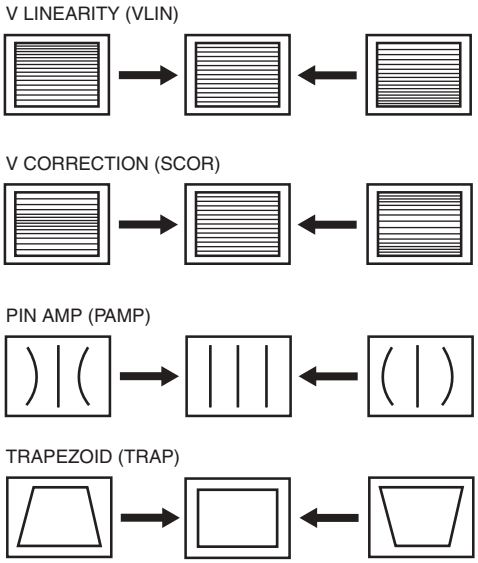
H. Size Adjustment (HSIZ)

1. Input a monoscope signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the HSIZ item.
5. Adjust value of HSIZ by pressing 3 or 6 for the best horizontal size.
6. Press MUTING then ENTER to write into memory.



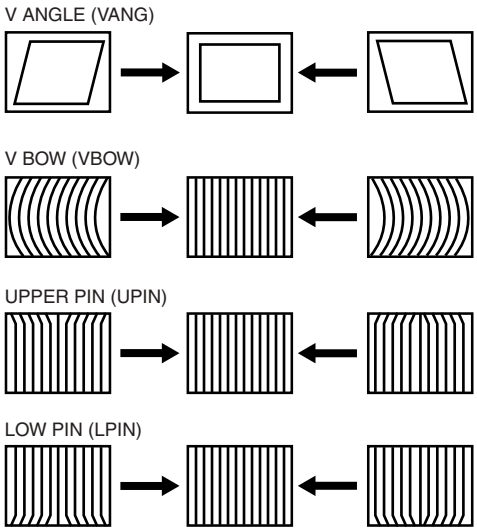
V. Linearity (VLIN), V. Correction (SCOR), PIN Amp (PAMP), and Trapezoid (TRAP) Adjustments

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VLIN item.
5. Adjust the value of VLIN by pressing 3 or 6 for the best horizontal size.
6. Repeat steps 4 and 5 for SCOR, PAMP, and TRAP.
7. Press MUTING then ENTER to write into memory.



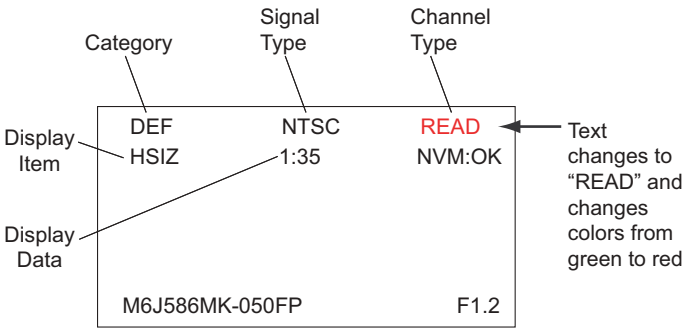
V. Angle (VANG), V. Bow (VBOW), Upper PIN (UPIN) and Low PIN (LPIN) Adjustments

1. Input a crosshatch signal.
2. Access Service Adjustment Mode.
3. Press 2 or 5 to select the DEF category.
4. Press 1 or 4 to display the VANG item.
5. Adjust the value of VANG by pressing 3 or 6 for the best picture.
6. Repeat steps 4 and 5 for VBOW, UPIN, and LPIN.
7. Press MUTING then ENTER to write into memory.



Reading Adjustments to Memory

1. After completing all adjustments, 0 then ENTER to read into memory.



4-6. SERVICE DATA LISTS

Device "DEF"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF / AV / YUV / DTV
Var 1	HSIZ	H SIZE(EW DC)	28 29 27 27
Var 2	HPOS	H POSITION	18 21 18 18
Var 3	VSIZ	V RAMP SIZE	37 36 39 39
Var 4	VPOS	V POSITION(RAMP DC)	33 33 33 34
Var 5	VLIN	V LINEARITY	36
Var 6	SCOR	S CORRECTION	50
Var 7	VBOW	BOW	34
Var 8	VANG	ANGLE	34
Var 9	TRAP	EW TRAPESIUM	29
Var 10	PAMP	EW PIN	28
Var 11	UPIN	UPPER PIN	29
Var 12	LPIN	LOWER PIN	29
Var 13	TROT	TROT	109
Var 14	HBLK	H BLK mode select	00
Var 15	RBLK	HBLK rear timing	24 32 29 27
Var 16	LBLK	HBLK front timing	50 52 47 47
Var 17	VBLK	V BLK width	03
18	HMSK	TOP VEND(when MACROVISION)prevent OFF	00
19	HDW	H PULSE WIDTH(25u 19u)	1
20	AFC	AFC GAIN	00
21	AFC1	AFC1 TIME CONSTANT	03 03 03 03
22	AFCW	AFC1 PULL IN WIDE	01
23	CDMD	V DET WINDOW SW TIMING	01
24	HSS	SYNC SLICE LEVEL(H sepa)	00
25	VSS	SYNC SLICE LEVEL(V sepa)	03
26	SLUD	Auto Slice level UP DOWN	00
27	JPSW	Jump SW	00
28	HOSC	H VCO fo offset ADJUST OFFSET	03
29	EHT	EHT	04
30	EHTG	EHT MODE	01
31	SLOH	LPF SYNC H	01
32	SLOV	LPF SYNC V	03
33	SLOP	LPF SYNC	03
34	SLVC	LPF SYNC VCOIN OFF	00
35	SLHC	LPF SYNC HCOIN OFF	00
36	VF50	VFREERUN 50Hz	00
37	VSET	V FREQ SET 50\60 AUTO	00

Device "16:9"

Item#	OSD	DETAIL	Initial Data 27" (DEC)
Var 1	VSIZ	V RAMP SIZE	45
Var 2	VPOS	V POSITION(RAMP DC)	33
Var 3	VLIN	V LINEARITY	32
Var 4	SCOR	S CORRECTION	24
Var 5	TRAP	EW TRAPESIUM	33
Var 6	PAMP	EW PIN	14
Var 7	UPIN	UPPER PIN	31
Var 8	LPIN	LOWER PIN	31
Var 9	ABLG	ABL GAIN	1
Var 10	SCON	SUB CONTRAST LEVEL	2
Var 11	VPW	Jump Pulse Width	1

Device "VP1"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF-AV / YUV / DTV
Var 1	RDRV	R DRIVE	84
Var 2	GDRV	G DRIVE when Color Temp. is "Cool" and "Neutral"	64 66 66
Var 3	BDRV	B DRIVE when Color Temp. is "Cool" and "Neutral"	66 67 64
Var 4	RCUT	Hardware AKB(R) CMP DATA	100
Var 5	GCUT	Hardware AKB(G) CMP DATA when Color Temp. is "Cool" and "Neutral"	68 68 68
Var 6	BCUT	Hardware AKB(B) CMP DATA when Color Temp. is "Cool" and "Neutral"	65 64 64
Var 7	SCON	SUB CONTRAST LEVEL	6
Var 8	SHUE	SUB TINT(HUE) RF / AV / YUV /	11 08 08 08
Var 9	SCOL	SUB COLOR LEVEL for Not NR RF / AV / YUV /	12 12 24 24
Var 10	SBRT	SUB BRIGHTNESS	12 16 16
Var 11	RON	R OUTPUT ON (0:R Output OFF 1:R Output ON)	01
Var 12	GON	G OUTPUT ON (0:G Output OFF 1:G Output ON)	01
Var 13	BON	B OUTPUT ON (0:B Output OFF 1:B Output ON)	01
14	BLLV	BLUE STRETCH(00:no <-> 11:deep) only Color Temp "Cool"	01
15	BLLM	BLUE STRETCH Y LEREL LIMIT LEVEL	00
16	MTRX	MATRIX RATIO SELECT	01
17	AXIS	R-Y PHASE OFFSET	52
18	GYG	G-Y Gain	00
19	GYP	G-Y PHASE	00
20	SSHO	SUB SHARPNESS GAIN(OVER) RF VIDEO RF / AV / YUV /	14 16 02 02
21	SSHP	SUB SHARPNESS GAIN(PRE) RF VIDEO RF / AV / YUV	19 21 13 13
22	SHPF	SHRPNESS fo(00:2 CLK <-> 11:5 CLK) RF / AV / YUV /	0 1 0 0
23	SHCL	SHARPNESS CORING LEVEL	01
24	SHMX	SHARPNESS LIMITTER LEVEL	15
25	AKBD	AKB Self Diagnostic Counter(@1sec)	05
26	AKBS	AKB Switch (0 : AKB OFF 1 : H W AKB ON)	01
27	REFP	AKB REFPLS timing ("0"Fix when 16:9On)	00
28	YNRC	YNR LIMITER LEVEL	15
29	VYNR	VYNR LIMITER LEVEL	00
30	BKON	BLACK STRETCH ON	01

Device "VP1"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF-AV / YUV / DTV
31	BKRC	BLACK STRETCH DETECTOR TIME CONSTANT1	252
32	BKDP	BLACK STRETCH START POINT	PALLETE
33	BKSP	BLACK STRETCH POINT	PALLETE
Var 34	UOFS	U IN OFFSET RF / AV / YUV /	32 32 73 73
Var 35	VOFS	V IN OFFSET RF / AV / YUV /	32 32 89 89
36	TAKE	BPF F0 UP	00 00 00
37	TAKW	BPF F0 UP WIDTH	00 00 00

Device "VP2"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF / AV / YUV / DTV
1	VMOF	VM LEVEL at "Off" Setting	02
2	VMLO	VM LEVEL at "Low" Setting	05
3	VMHI	VM LEVEL at "High" Setting	11
4	VMDL	VM DELAY	11 11 7 7
5	VMPL	VM PORALITY	01
6	VMWD	VM WIDTH	00
7	VMCL	VM CORING LEVEL	00
8	VMMX	VM LIMITER LEVEL	15
9	CKLV	COLOR KILLER VTH	01
10	CKON	FORCE KILLER	00
11	VACL	V APERTURE CORING LEVEL	00
12	VAGA	V APERTURE GAIN LEVEL	PALLETE
13	VAMX	V APERTURE LIMITER LEVEL	15
14	GAMM	GAMMA(00:no <-->11:deep)	PALLETE
15	YDLY	Y DELAY TIME	03
16	CDLY	C DELAY	02
17	BGPP	BGP(for C DECODER)TIMING	11
18	NRBP	NOISE DET BPF	00
19	NRLS	NOISE DET POS	00
20	NRDT	NOISE DET CORING LEVEL	00
21	GDOF	G DRIVE OFFSET only Color Temp. "Warm"	18
22	BDOF	B DRIVE OFFSET only Color Temp. "Warm"	31
23	GCOF	GCUT CMP DATA OFFSET only Color Temp. "Warm"	02
24	BCOF	BCUT CMP DATA OFFSET only Color Temp. "Warm"	04
25	DCTV	DCTRANSFER VTH	03
26	DCTG	DCTRANSFER GAIN	PALLETE

Device "Y C"

Item#	OSD	DETAIL	Initial Data 27" (DEC)
1	ALFA	ADAPTIVE DET SENSITIVITY	01
2	YCMD	YC SEPA FORCE SELECT(00:ADAPTIVE 01:H 10:V 11:HV)	00

Device "NR"

Item#	OSD	DETAIL	Initial Data 27" (DEC)
1	SCOL	SUB COLOR LEVEL for NR	07
2	SHCL	SHARPNESS NOISE CORING LEVEL for NR	15
3	SHMX	SHARPNESS LIMITTER LEVEL for NR	07
4	YNRC	YNR LIMITER LEVEL for NR	7
5	VMHI	VM LEVEL at "High" Setting for NR	07
6	VMCL	VM CORING LEVEL for NR	00
7	VMMX	VM LIMITER LEVEL for NR	07
8	VAGA	V APERTURE GAIN LEVEL for NR	0
9	GAMM	GAMMA(00:no <-->11:deep) for NR	0
10	YNRS	YNR ON for NR	1
11	WSTH	WEAK_SIGNAL VTH for NR	7
12	WSVA	WEAK SIGNAL VIDEO ATT for NR	00
13	WSCA	WEAK SIGNAL CHROMA ATT for NR	05

Device "PALLET" for "VIVID"

Item#	OSD	DETAIL	Initial Data 27" (DEC)
1	VPIC	Picture(VIVID)	63
2	VBRI	Brightness(VIVID)	32
3	VCOL	Color(VIVID)	30
4	VHUE	Hue(VIVID)	31
5	VSHA	Sharpness(VIVID)	35
6	VVM	VM(VIVID)	02
7	VTRI	Color Temp(VIVID)	00
8	VAPA	Aperture G(VIVID)	07
9	VGMA	Gamma(VIVID)	02
10	VDCT	DCT LV(VIVID)	12
11	BKDP	BLACK STRETCH DEPTH(VIVID)	03
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)	252
13	BKSP	BLACK STRETCH POINT(VIVID)	02
14	CONO	CONTRAST OFFSET for RF(VIVID)	00
15	COOF	Contrast Offset	00

Device "PALLET" for "STD"

Item#	OSD	DETAIL	Initial Data 27" (DEC)
1	VPIC	Picture(STANDARD)	58
2	VBRI	Brightness(STANDARD)	31
3	VCOL	Color(STANDARD)	31
4	VHUE	Hue(STANDARD)	31
5	VSHA	Sharpness(STANDARD)	37
6	VVM	VM(STANDARD)	01
7	VTRI	Color Temp(STANDARD)	01
8	VAPA	Aperture G(STANDARD)	04
9	VGMA	Gamma(STANDARD)	01
10	VDCT	DCT LV(STANDARD)	09
11	BKDP	BLACK STRETCH DEPTH(STANDARD)	02
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)	252
13	BKSP	BLACK STRETCH POINT(STANDARD)	01
14	CONO	CONTRAST OFFSET for RF(STANDARD)	00
15	COOF	Contrast Offset	00

Device "PALLET" for "MOVIE"

Item#	OSD	DETAIL	Initial Data 27" (DEC)
1	VPIC	Picture(MOVIE)	45
2	VBRI	Brightness(MOVIE)	28
3	VCOL	Color(MOVIE)	31
4	VHUE	Hue(MOVIE)	31
5	VSHA	Sharpness(MOVIE)	34
6	VVM	VM(MOVIE)	01
7	VTRI	Color Temp(MOVIE)	02
8	VAPA	Aperture G(MOVIE)	03
9	VGMA	Gamma(MOVIE)	01
10	VDCT	DCT LV(MOVIE)	09
11	BKDP	BLACK STRETCH DEPTH(MOVIE)	01
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)	252
13	BKSP	BLACK STRETCH POINT(MOVIE)	01
14	CONO	CONTRAST OFFSET for RF(MOVIE)	00
15	COOF	Contrast Offset	00

Device "PALLET" for "Pro"

Item#	OSD	DETAIL	Initial Data 27" (DEC)
1	VPIC	Picture(Pro)	39
2	VBRI	Brightness(Pro)	31
3	VCOL	Color(Pro)	31
4	VHUE	Hue(Pro)	31
5	VSHA	Sharpness(Pro)	31
6	VVM	VM(Pro)	00
7	VTRI	Color Temp(Pro)	01
8	VAPA	Aperture G(Pro)	00
9	VGMA	Gamma(Pro)	00
10	VDCT	DCT LV(Pro)	02
11	BKDP	BLACK STRETCH DEPTH(Pro)	01
12	BKRC	BLACK ST TIME1 , BLACK ST TIME2(VIVID)	252
13	BKSP	BLACK STRETCH POINT(Pro)	00
14	CONO	CONTRAST OFFSET for RF(Pro)	00
15	COOF	Contrast Offset	00

Device "ASIC"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF-AV / YUV / DTV
1	YNRS	YNR ON	0
2	CLPS	CLAMP CONTROL SW 0:CLAMP OFF 1:CLAMP AUTO1 mode (usual procedure) 2:CLAMP ON mode 3: CLAMP AUTO2 mode (New procedure)	1
3	VMG2	MODULATOR FEEDBACK GAIN CONTROL	1
4	CLPT	CLAMP AUTO ON KEEP TIMER COUNT (@100ms)	15
5	AASL	C DECODER TIME CONSTANT(32,16,8,1H)	2
6	BASL	ACC TIME CONSTANT	0
7	ACTH	ROM HYS	95
8	AVAV	AVE SEL AV	3
9	B2TH	B2COMP	0
10	CORL	R CUTOFF lower	0
11	CORH	R CUTOFF upper	1
12	COGL	G CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0
13	COGH	G CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1
14	COBL	B CUTOFF lower when Color Temp. is "Cool" and "Neutral"	0
15	COBH	B CUTOFF upper when Color Temp. is "Cool" and "Neutral"	1
16	ALSP	ACL SPEED	0
17	ALAS	ACL ATACK SPEED	146
18	ABLG	ABL GAIN	4
19	AKBP	AKB PULSE HEIGHT	10
20	AALG	ANALOG ACL GAIN CONTROL	0
21	AALS	ANALOG ACL ON/OFF CONTROL	1
22	UVDT	UVIN DITHER TEST	12
23	YDT	Y DITHER LEVEL	0
24	HFFR	AFC1 FORCE FREERUN	0
25	HFUP	H FREERUN FREQUENCY UP(700Hz)	0
26	JSWW	Jump Pulse Width	0
27	XF0A	VCXO FREERUN ADJUST	0
28	BGST	BGP(for PLL) TIMING	16 06 06
29	XPHA	VCXO PHASE ADJUST	10
30	HRMP	AFC2 TIME CONSTANT	3
31	RPLU	REF PLL TIME CONSTANT	3
32	RPLB	REF PLL TIME CONSTANT	1
33	XF0B	VCXO Fo ADJUST	0
34	RPLS	REF VCO FB LOOP SELECT	0

Device "ASIC"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF-AV / YUV / DTV
35	SSM	SyncSepaMasking CONTROL	0
36	VSAG	V-SAG prevent ON	0
37	AFC2	AFC2 GAIN CONTROL	0
38	XPLU	ACP TIME CONSTANT	1
39	XPLA	APC TIME CONSTANT BW SLOW	00
40	CDM2	V_LOGIC SW	1
41	MHDL	BGP SEL	1
42	HRPP	FRAMP RRAMP H OUT CONTROL RANGE	02
43	DSCK	DS DAC CLK SW for only Not YUV (YUV:"1"Fix) 4:3 /	00 00
44	VPW	V Pulse Wide	1
45	DTH	DITHER THRESHOLD LEVEL CONTROL at IIC AUTOD=ON	1
46	YOFF	Y OUTPUT MUTE	0
47	VSSW	SYNC SLICE LEVEL(V) Wide Window	0
48	AF2S	AFC2 timing SW	0
49	VSL2	Digital V_SYNC_LPF(fall)	1
50	VSL1	Digital V_SYNC_LPF(rise)	0
51	VSHE	V-SHRINK MODE for AV-NoSync	0
52	DSCS	CLOCK DIV SEL	00 01 01
53	14HI	4fsc(Skew)CLK POLARITY	01
54	14HD	4fscCLK(Skew)CLK DELAY ADJUST	00
55	DSI	8fscCLK POLARITY	01
56	DSD	8fscCLK DELAY ADJUST	00
57	ADCD	ADC CLK DELAY ADJUST	01
58	WSTH	WEAK_SIGNAL VTH	00
59	WSVA	WEAK SIGNAL VIDEO ATT	00
60	WSCA	WEAK SIGNAL CHROMA ATT	00
61	VREF	AD REFERNCE SELECT(VZ)	00
62	DCCK	AD REFERNCE SELECT(VZ)	12 00 00
63	OSDC	OSD COMP	00
64	HLM1	H/W AKB LIM1	04
65	HLM2	H/W AKB LIM2	12
66	HLM3	H/W AKB LIM3	21
67	HAD1	H/W AKB SPEED1	02
68	HAD2	H/W AKB SPEED2	06
69	HAKE	H/W AKB MANUAL (MCU)/HARD	01
70	HASP	H/W AKB SPEED	03
71	HERL	H/W AKB ERROR DET THRESH	10
72	HLMC	H/W AKB ERROR DET TIME	15
73	HPWL	H/W AKB POWER ON TRESH	04
74	HPWC	H/W AKB POWER ON TIME	02
75	HFMT	POWER ON H/W AKB2 HOLD TIMER(@100msec) [0 : No Hold]	20
76	SPMT	AKB POWER ON MUTE EXIT TIMER(@100msec)	120
77	Y16M	YUV 16M	01
78	PCLP	Pedestal Clamp	00

Device "Audio Processor"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF-AV / YUV / DTV
1	SBAL	Sub Balance	04
2	SBAS	Sub Bass	00
3	STRE	Sub Treble	00
4	SRL	Surround Level	00
5	BBOL	Surround Off-BBE Low	04
6	BBOH	Surround Off-BBE High	03
7	BBSL	Simulate BBE Low	04
8	BBSH	Simulate BBE High	03
9	BBGL	WOW Game BBE Low	00
10	BBGH	WOW Game BBE High	00
11	BBTL	SRS BBE Low	04
12	BBTH	SRS BBE High	03
13	VFIX	Audio output fix data	241
14	AGCL	AGC level	02
15	VCOF	VOLUME OFFSET for RF	00

Device "Microprocessor"

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF-AV / YUV / DTV
1	DISP	OSD horizontal position	88
2	MEDP	Menu display postion	110
3	HRLW	Low limit of H-pulse counting window (RF)	16
4	HRHG	High limit of H-pulse counting wondow (RF)	64
5	HSDT	H-pulse Detection(S-Video)	08
6	STPI	Gradual CONTRAST Increase Starting level	40
7	RAPI	Gradual CONTRAST Increase Vsync counter	10
8	ZD60	Zero Cross Relay Delay (60 Hz)	07
9	ZD50	Zero Cross Relay Delay (50 Hz)	00
10	ABLT	ABL protection counter	03
11	OSLR	R OSD level	27
12	OSLG	G OSD level	27
13	OSLB	B OSD lebel	27

Device Q-BOX (QM)

Item#	OSD	DETAIL	Initial Data (DEC)
1	INFO	Service Information Display *(For Engineering Use)*	0
2	PATN	Video Test Pattern Display *(For Engineering Use)*	0
3	GPTN	Graphics Test Pattern Display *(For Engineering Use)*	0
4	ADLY	Audio Delay *(For Model Specific Setting)*	0
5	DSMT	Disable Muting *(For Engineering Use)*	0
6	GDIM	GUI Dimming *(For Model Specific Setting)*	0
7	GRAY	Media Viewer Gray Background Intensity *(For Model Specific Setting)*	0
8	ALPH	Graphics Global Alpha Level *(For Model Specific Setting)*	230
9	GFXX	Graphics Origin X Offset *(For Model Specific Setting)*	92
10	GFXY	Graphics Origin Y Offset *(For Model Specific Setting)*	28
11	GBRT	Graphics Brightness *(For Model Specific Setting)*	44
12	GCON	Graphics Contrast *(For Model Specific Setting)*	33
13	DTUN	Cable Direct Tuning Enable *(For Engineering Use)*	2
14	YCSW	Swap Y/C on 656-601 digital video converter output (For Engineering Use)	0
15	PCWM	PC input wide mode	0
16	PODS	Force POD Standby at Power Down *(For Engineering Use)*	0
17	WUSR	Write QM User Data to Memory Stick *(For production/service process)*	0
18	RUSR	Read QM User Data from Memory Stick (For production/service process)	0
19	UPIC	User Default Picture Level *(For engineering)*	V: 100
20	UBRT	User Default Brightness Level *(For engineering)*	V: 50
21	UCOL	User Default Color Level *(For engineering)*	V: 55
22	UHUE	User Default Hue Level *(For engineering)*	V: 50
23	USHP	User Default Sharpness Level *(For engineering)*	V: 40
24	UTMP	User Default Color Temperature Level *(For engineering)*	V: 2

Device Q-BOX (QT)

Item#		DETAIL	Initial Data (DEC)
1	CVSB	Cable VSB Support *(For Model Specific Setting)*	1
2	WSC0	Cable Wide Scanning Channel Slot #0 *(For service)*	0
3	WSC1	Cable Wide Scanning Channel Slot #1 *(For service)*	0
4	WSC2	Cable Wide Scanning Channel Slot #2 *(For service)*	0
5	WSC3	Cable Wide Scanning Channel Slot #3 *(For service)*	0
6	WSC4	Cable Wide Scanning Channel Slot #4 *(For service)*	0
7	WSC5	Cable Wide Scanning Channel Slot #5 *(For service)*	0
8	WSC6	Cable Wide Scanning Channel Slot #6 *(For service)*	0
9	WSC7	Cable Wide Scanning Channel Slot #7 *(For service)*	0
10	WSC8	Cable Wide Scanning Channel Slot #8 *(For service)*	0
11	WSC9	Cable Wide Scanning Channel Slot #9 *(For service)*	0

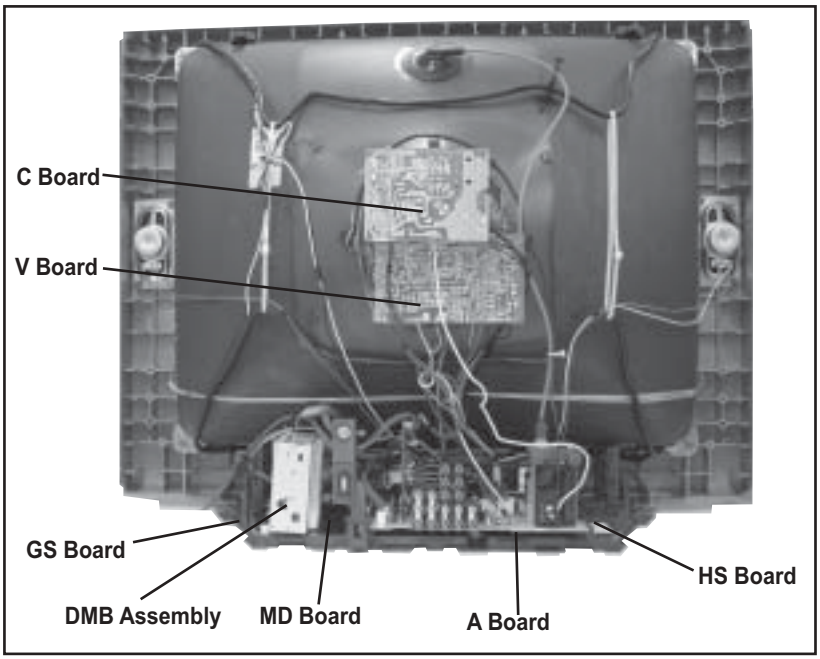
4-7. ID MAP TABLE

Device "Feature "

Item#	OSD	DETAIL	Initial Data 27" (DEC) RF-AV / YUV / DTV
1	ID0	Language related	73
2	ID1	Video ralated	31
3	ID2	Audio related	31
4	ID3	Miscellaneous	32
5	ID4	Miscellaneous	136
6	ID5	Miscellaneous	16
7	ID6	Miscellaneous	0
8	ID7	Miscellaneous	33

SECTION 5: DIAGRAMS

5-1. CIRCUIT BOARDS LOCATION



The components identified by shading and ⚠ symbol are critical for safety. Replace only with part number specified.

The symbol ▬ indicates a fast operating fuse and is displayed on the component side of the board. Replace only with fuse of the same rating as marked.

Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

Le symbole ▬ indique une fusible a action rapide. Doit etre remplace par une fusible de meme yaleur, comme maque.

5-2. PRINTED WIRING BOARD AND SCHEMATIC DIAGRAM INFORMATION

All capacitors are in µF unless otherwise noted. pF : µµF 50WV or less are not indicated except for electrolytics and tantalums.

All electrolytics are in 50V unless otherwise specified.

All resistors are in ohms. k=1000, M=1000k

Indication of resistance, which does not have one for rating electrical power, is as follows: Pitch : 5mm Rating electrical power :

$^1/_4$ W in resistance, $^1/_{10}$ W and $^1/_8$ W in chip resistance.

: nonflammable resistor.

: fusible resistor.

△ : internal component.

▭ : panel designation and adjustment for repair.

⊥ : earth ground

⏚ : earth-chassis

All variable and adjustable resistors have characteristic curve B, unless otherwise noted.

Readings are taken with a color-bar signal input.

Readings are taken with a 10M digital multimeter.

Voltages are DC with respect to ground unless otherwise noted.

Voltage variations may be noted due to normal production tolerances.

All voltages are in V.

S : Measurement impossibillity.

: B-line.

(Actual measured value may be different).

⇨: signal path. (RF)

Circled numbers are waveform references.

The components identified by ⋈ in this basic schematic diagram have been carefully factory-selected for each set in order to satisfy regulations regarding X-ray radiation. Should replacement be necessary, replace only with the value originally used.

When replacing components identified by ◪, make the necessary adjustments as indicated. If the results do not meet the specified value, change the component identified by ⋈ and repeat the adjustment until the specified value is achieved.
(Refer to Section 3: Safety Related Adjustments on Page 27.)

When replacing the parts listed in the table below, it is important to perform the related adjustments.

Part Replaced (◪)	Adjustment (⋈)
C531, C532, D519, D520, D521, IC501, IC600, PH602, R529, R530, R531, R532, R533, R550, T503 (FBT), T504 (DFT)	HV HOLD-DOWN R530, R531

REFERENCE INFORMATION

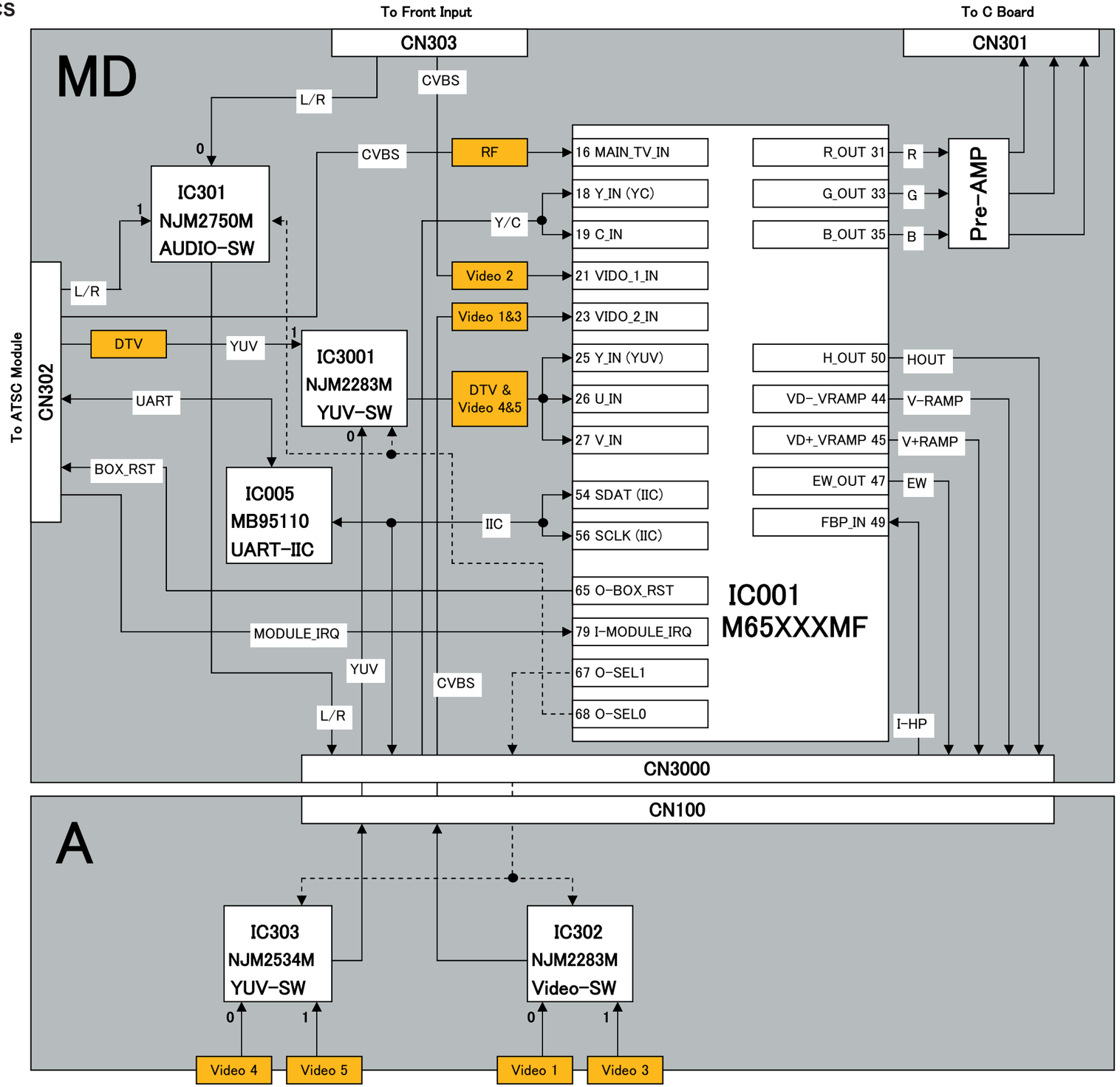
RESISTOR
- : RN METAL FILM
- : RC SOLID
- : FPRD NONFLAMMABLE CARBON
- : FUSE NONFLAMMABLE FUSIBLE
- : RW NONFLAMMABLE WIREWOUND
- : RS NONFLAMMABLE METAL OXIDE
- : RB NONFLAMMABLE CEMENT
- : ※ ADJUSTMENT RESISTOR

COIL
- : LF-8L MICRO INDUCTOR

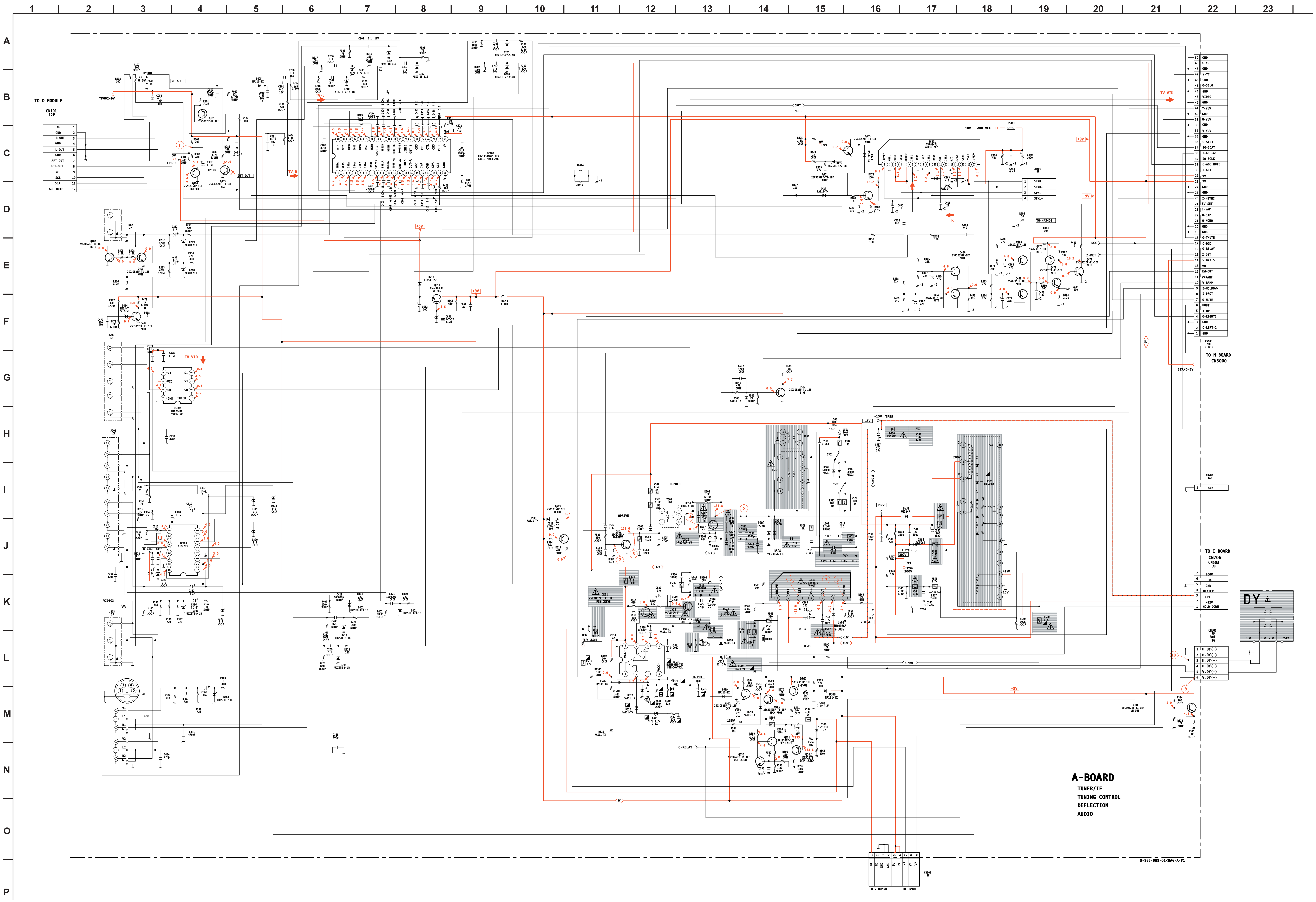
CAPACITOR
- : TA TANTALUM
- : PS STYROL
- : PP POLYPROPYLENE
- : PT MYLAR
- : MPS METALIZED POLYESTER
- : MPP METALIZED POLYPROPYLENE
- : ALB BIPOLAR
- : ALT HIGH TEMPERATURE
- : ALR HIGH RIPPLE

5-3. BLOCK DIAGRAMS AND SCHEMATICS

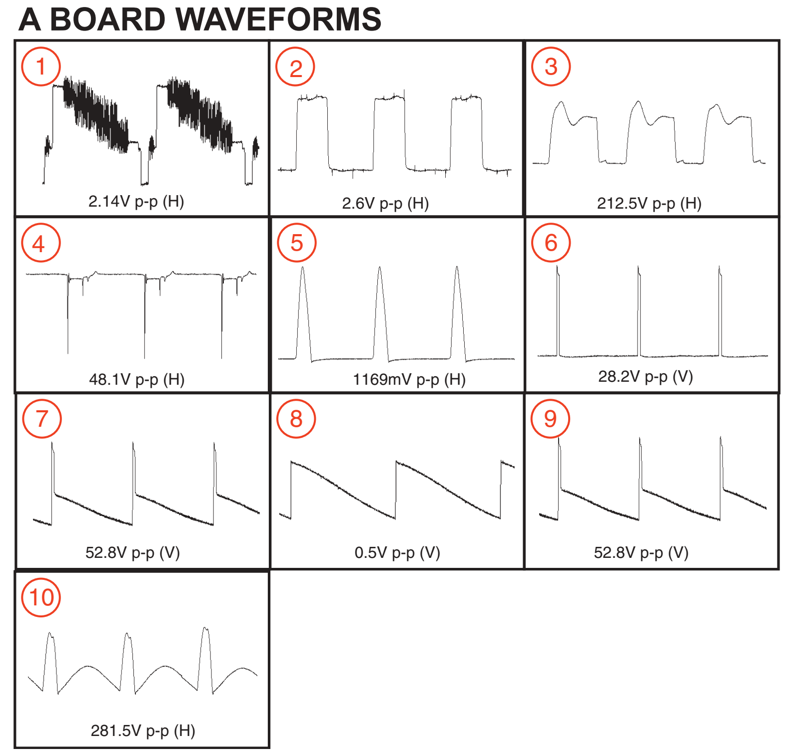
SIGNAL FLOW BLOCK DIAGRAM



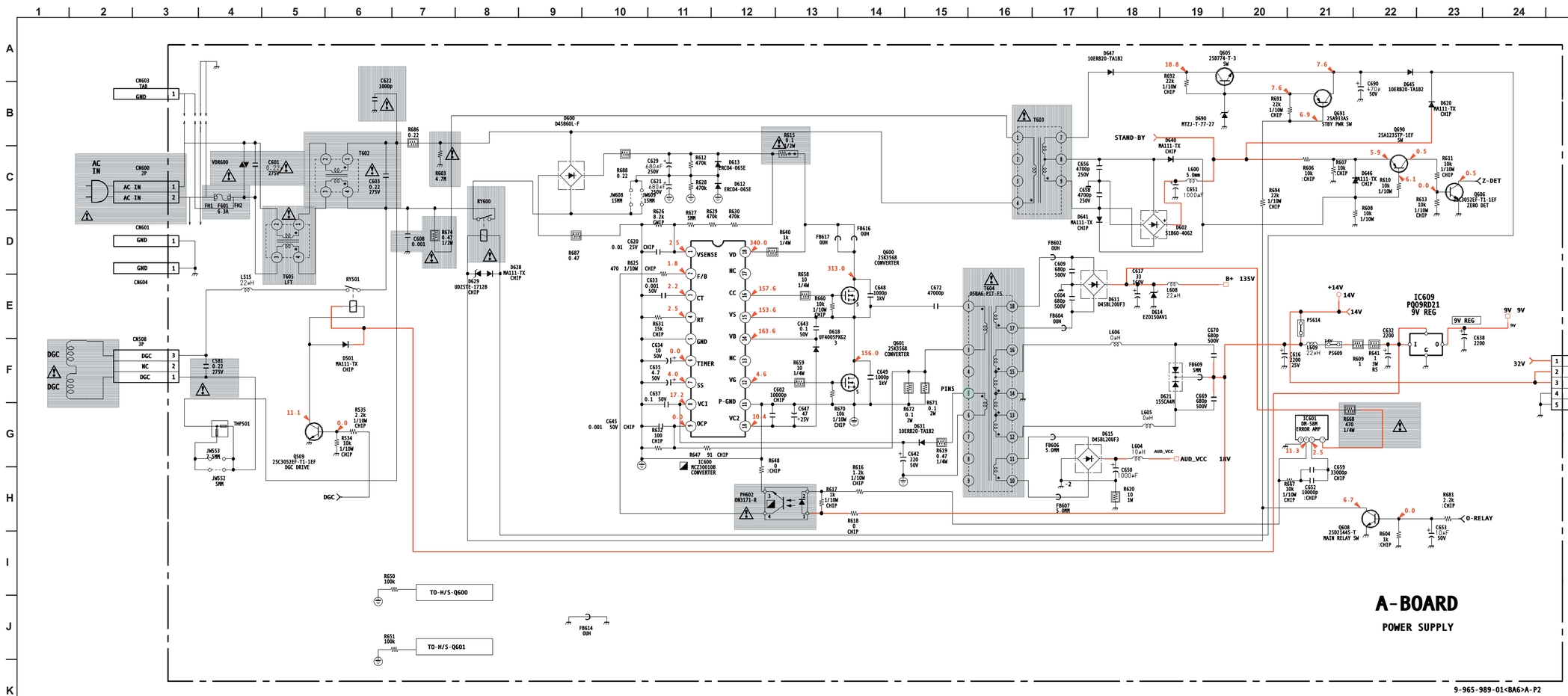
A BOARD SCHEMATIC DIAGRAM (1 OF 2)



A BOARD WAVEFORMS

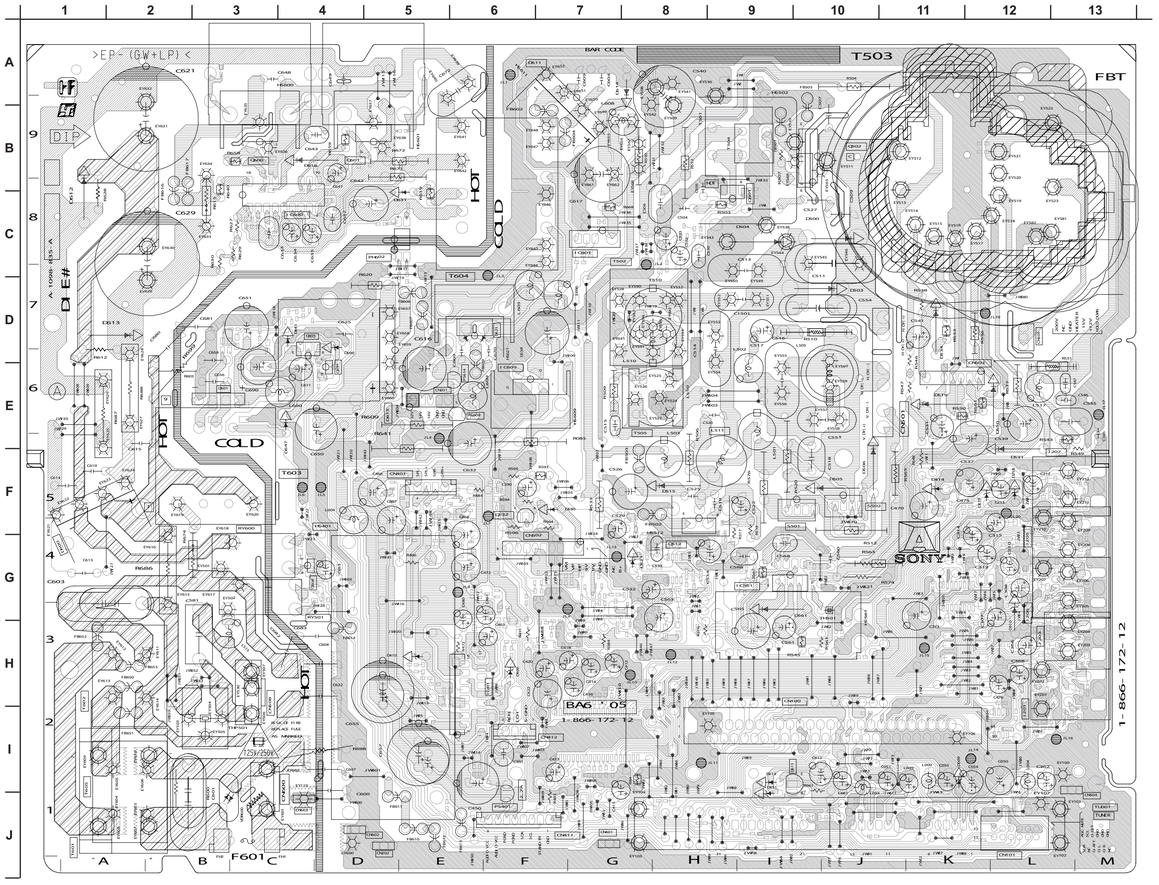


A BOARD SCHEMATIC DIAGRAM (2 OF 2)



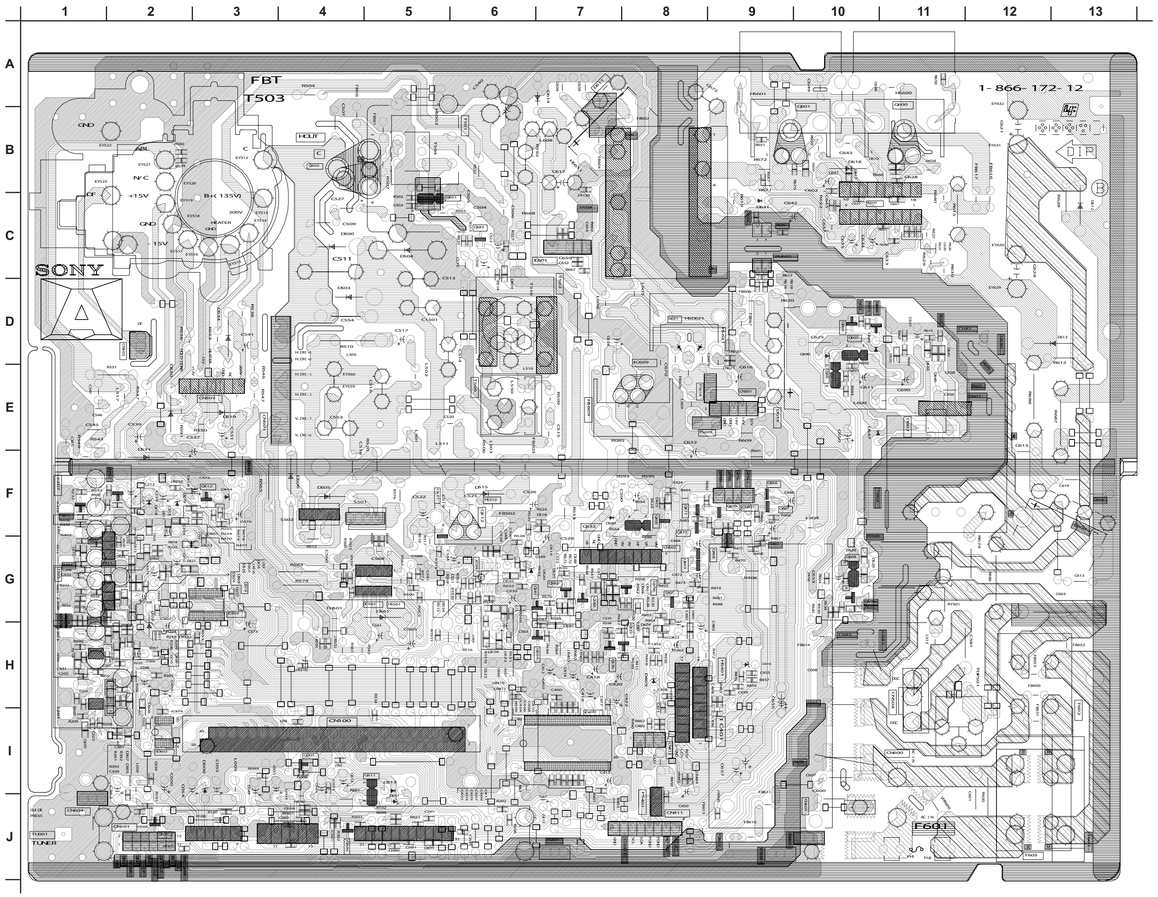
A [TUNER/IF, TUNING CONTROL, DEFLECTION, AUDIO, POWER SUPPLY]

COMPONENT SIDE



A [TUNER/IF, TUNING CONTROL, DEFLECTION, AUDIO, POWER SUPPLY]

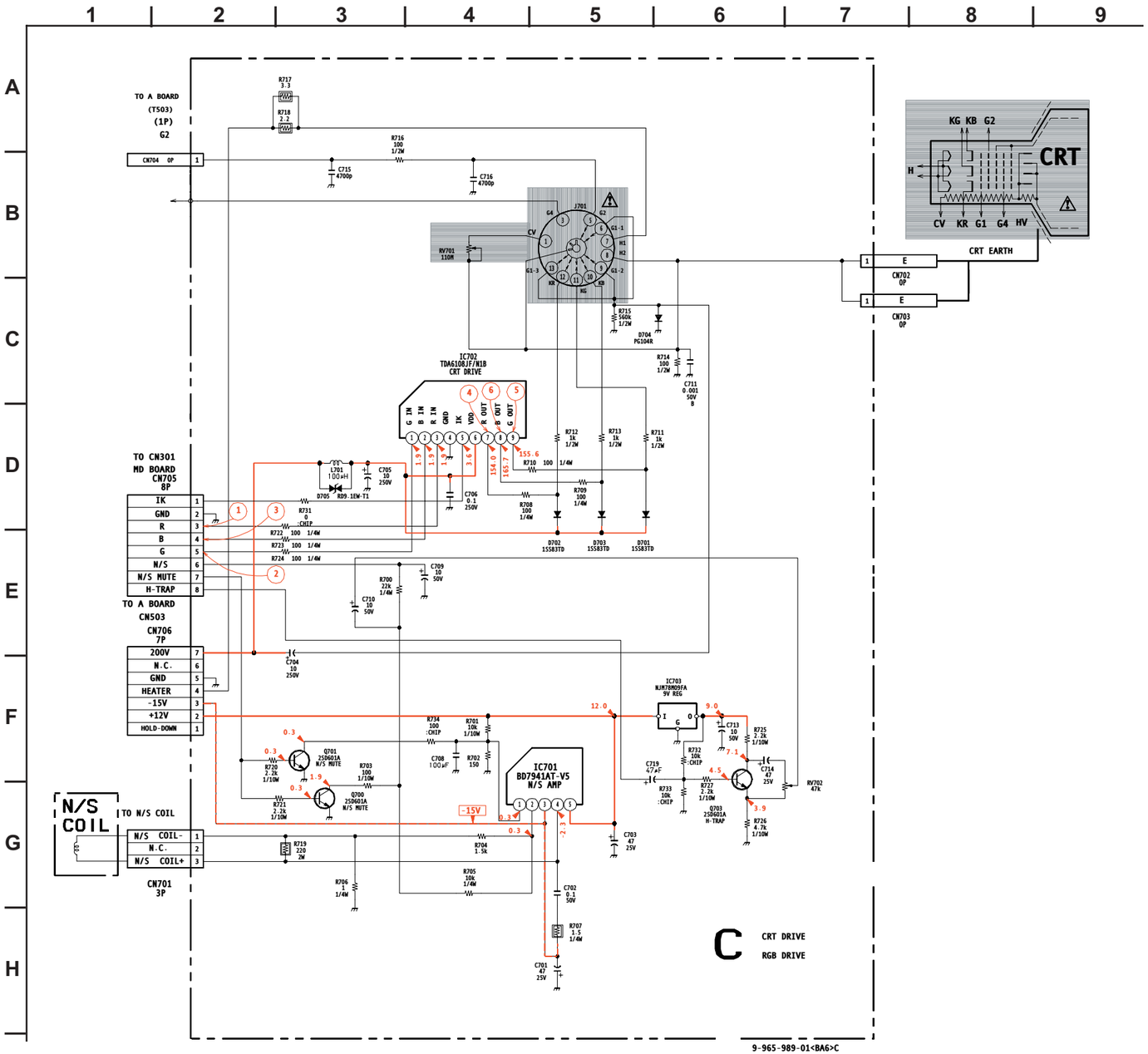
CONDUCTOR SIDE



A BOARD LOCATOR LIST
CONDUCTOR SIDE

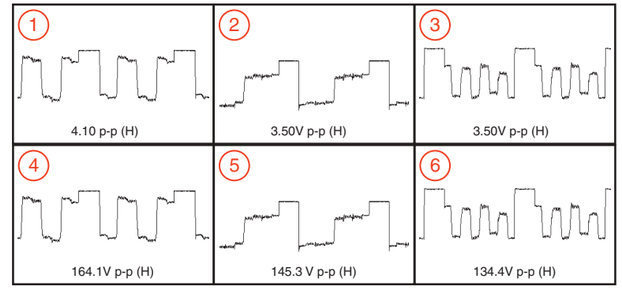
DIODE		DIODE		DIODE		IC		TRANSISTOR	
D200	H-1	D423	G-8	D580	F-7	IC302	I-2	Q509	G-10
D201	I-1	D424	G-8	D588	G-7	IC303	G-3	Q511	F-5
D209	H-2	D425	F-8	D589	H-6	IC400	I-7	Q512	F-6
D210	H-2	D500	C-4	D590	G-7	IC401	H-9	Q530	H-7
D211	H-2	D501	G-10	D600	F-12	IC501	G-6	Q531	G-8
D212	G-2	D503	D-4	D602	E-11	IC561	G-5	Q532	F-7
D213	I-5	D504	C-5	D611	A-7	IC600	C-10	Q561	G-6
D218	F-2	D505	F-4	D612	B-13	IC601	C-7	Q562	G-7
D219	F-2	D506	F-4	D613	D-13	IC609	D-8	Q564	G-6
D305	I-2	D508	G-8	D614	A-7	TRANSISTOR		Q582	G-7
D306	H-2	D509	D-6	D615	E-9	Q005	I-4	Q583	C-6
D307	I-2	D515	F-6	D618	B-10	Q300	J-4	Q600	A-11
D308	H-2	D516	G-7	D620	D-11	Q304	G-8	Q601	A-10
D318	G-3	D518	F-7	D621	D-8	Q402	F-2	Q605	D-10
D319	G-3	D519	E-3	D628	F-10	Q403	F-1	Q606	D-10
D320	G-3	D520	G-7	D629	G-10	Q405	F-8	Q608	G-10
D321	G-2	D521	G-7	D631	C-9	Q412	F-3	Q611	I-5
D322	G-2	D522	H-6	D640	D-11	Q466	F-9	Q690	D-10
D323	G-3	D525	H-6	D641	D-11	Q467	F-9	Q691	D-10
D400	G-8	D526	H-6	D645	D-10	Q468	G-8		
D401	F-3	D530	E-2	D646	D-11	Q469	G-8		
D402	G-2	D531	E-2	D647	E-10	Q470	F-9		
D405	J-5	D534	D-3	D651	I-5	Q471	F-8		
D414	F-3	D535	G-6	D690	D-10	Q472	F-8		
D418	F-2	D551	G-8			Q501	B-6		
D422	G-8	D561	G-5			Q502	B-4		

C BOARD SCHEMATIC DIAGRAM



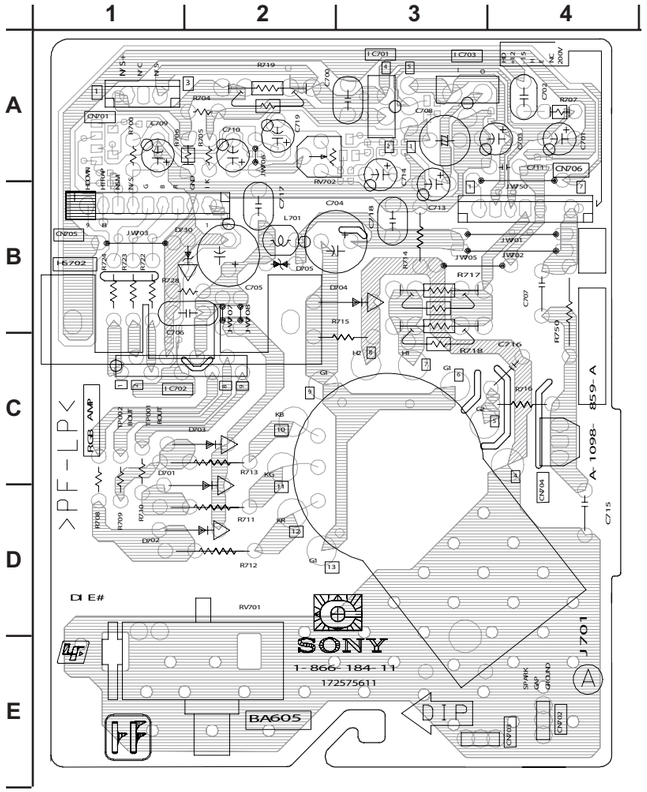
9-965-989-01<BA6>C

C BOARD WAVEFORMS



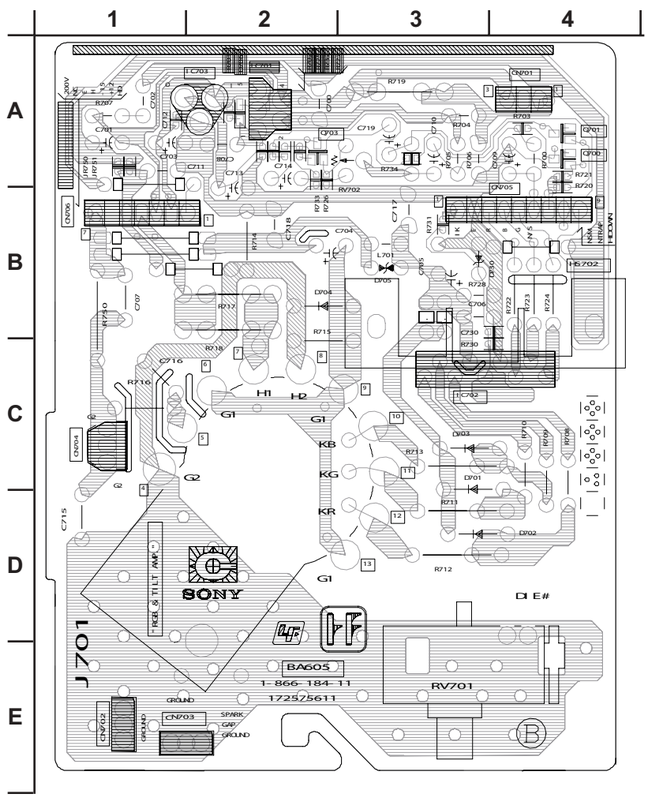
C [CRT DRIVE, RGB DRIVE]

COMPONENT SIDE

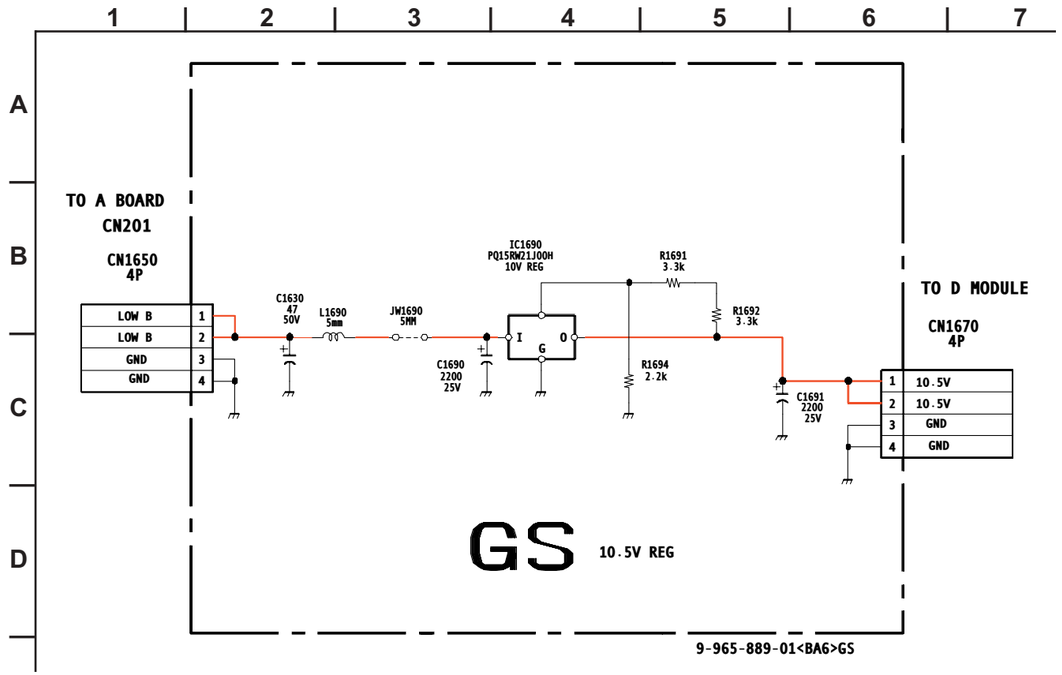


C [CRT DRIVE, RGB DRIVE]

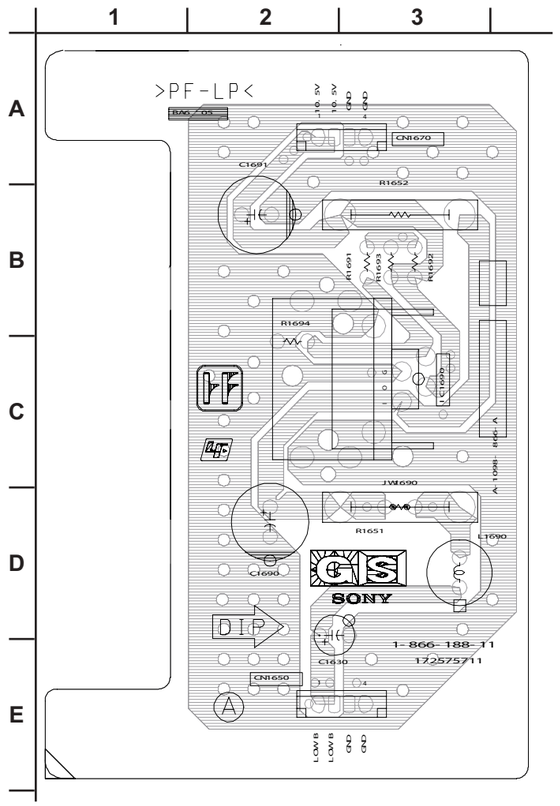
CONDUCTOR SIDE



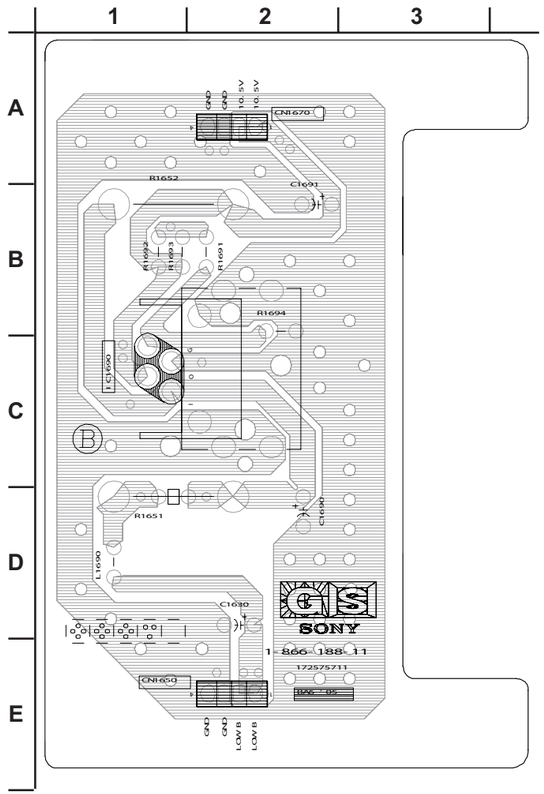
GS BOARD SCHEMATIC DIAGRAM



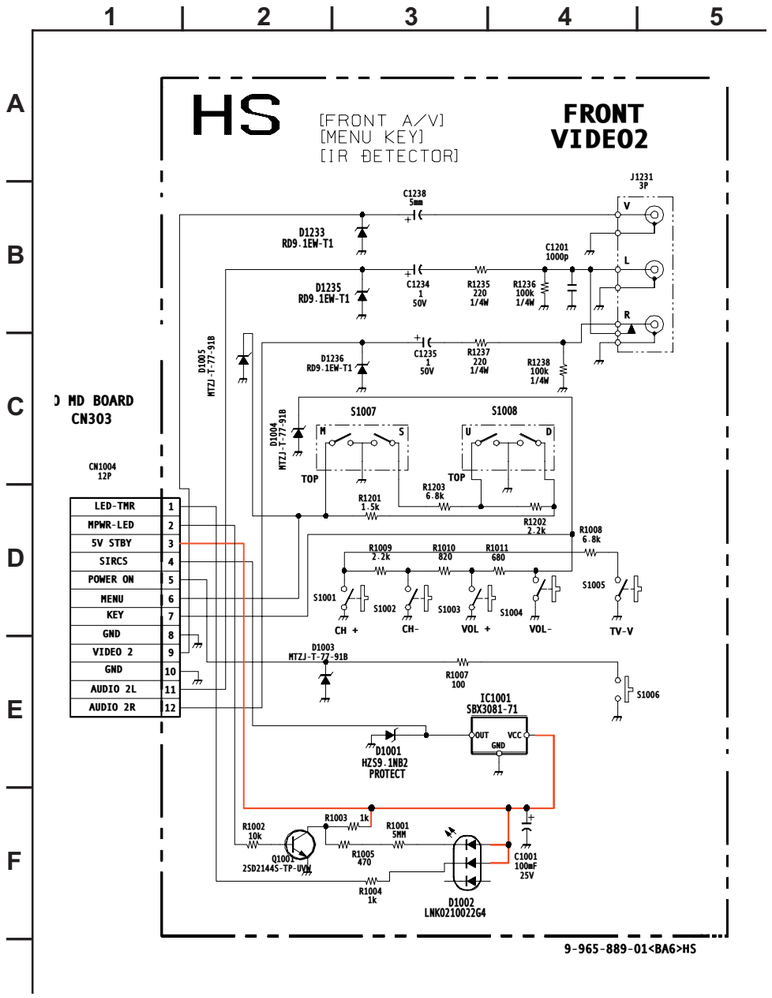
GS [10.5V REG] COMPONENT SIDE



GS [10.5V REG] CONDUCTOR SIDE

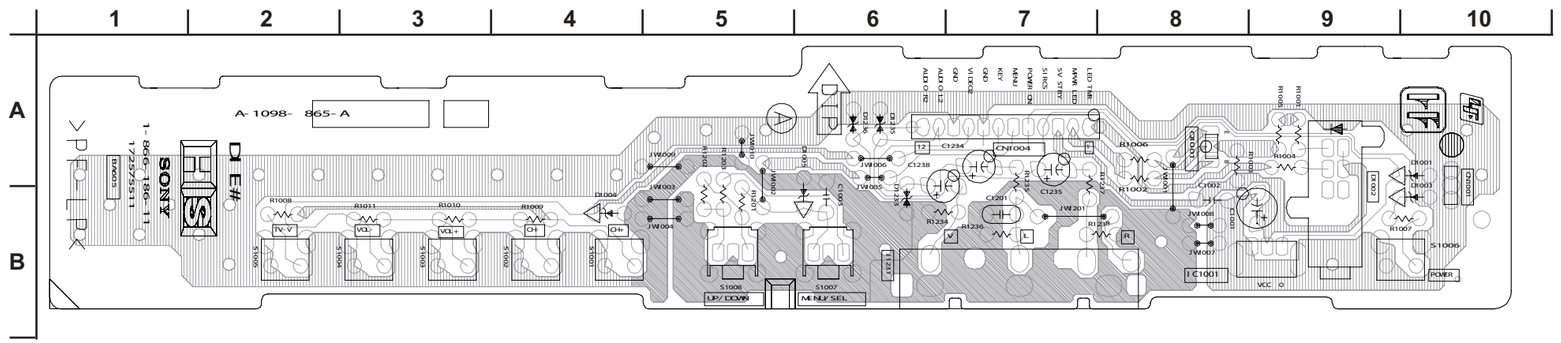


HS BOARD SCHEMATIC DIAGRAM

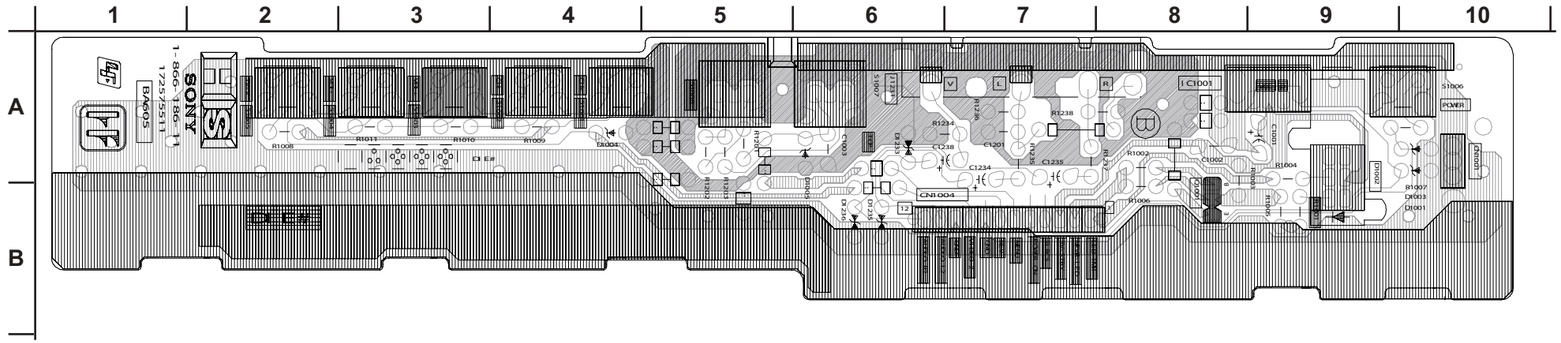


9-965-889-01<BA6>HS

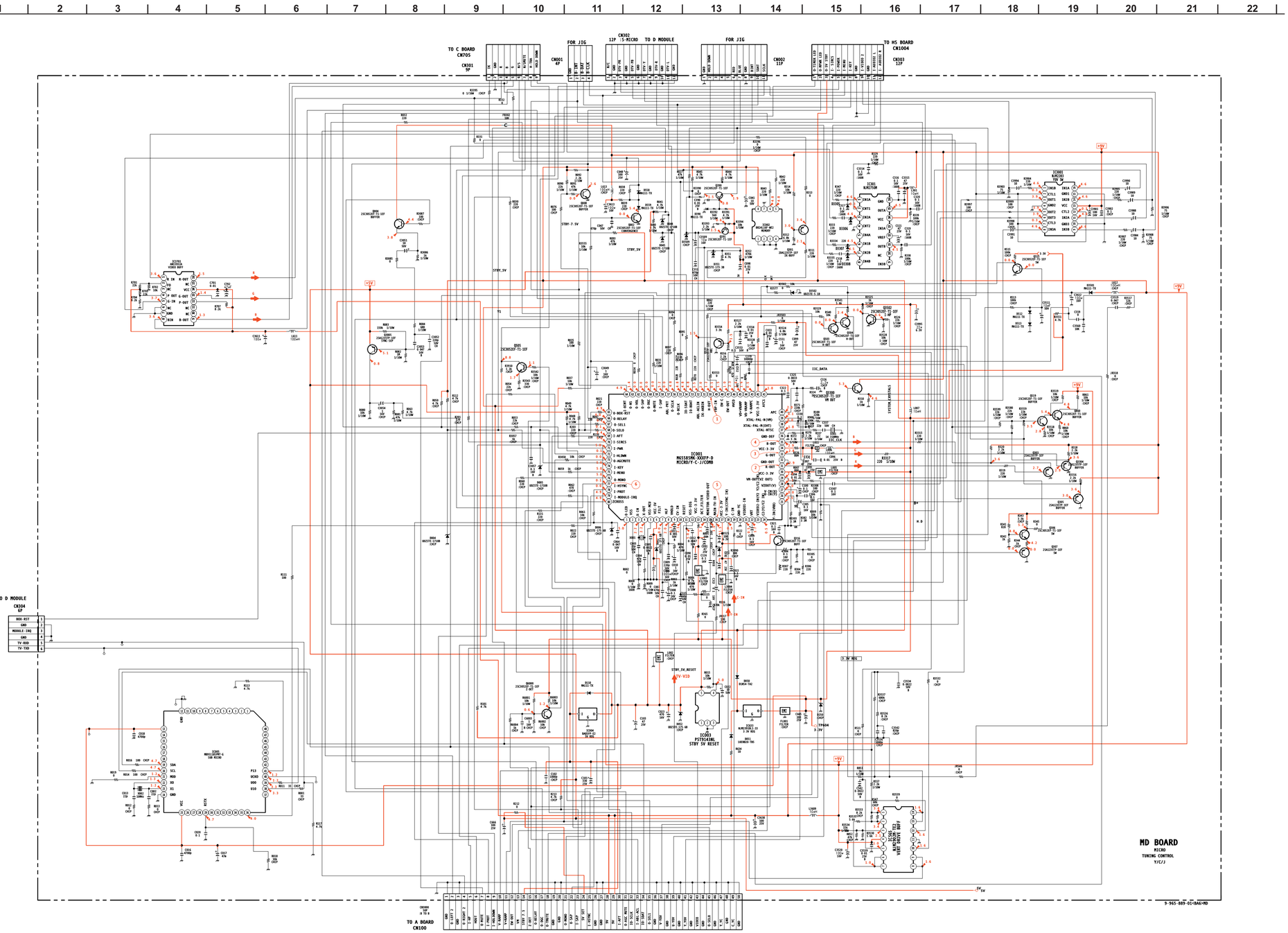
HS [FRONT A/V, MENU KEY, IR DETECTOR] COMPONENT SIDE



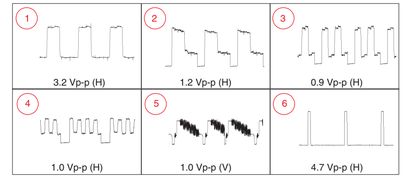
HS [FRONT A/V, MENU KEY, IR DETECTOR] CONDUCTOR SIDE



MD BOARD SCHEMATIC DIAGRAM

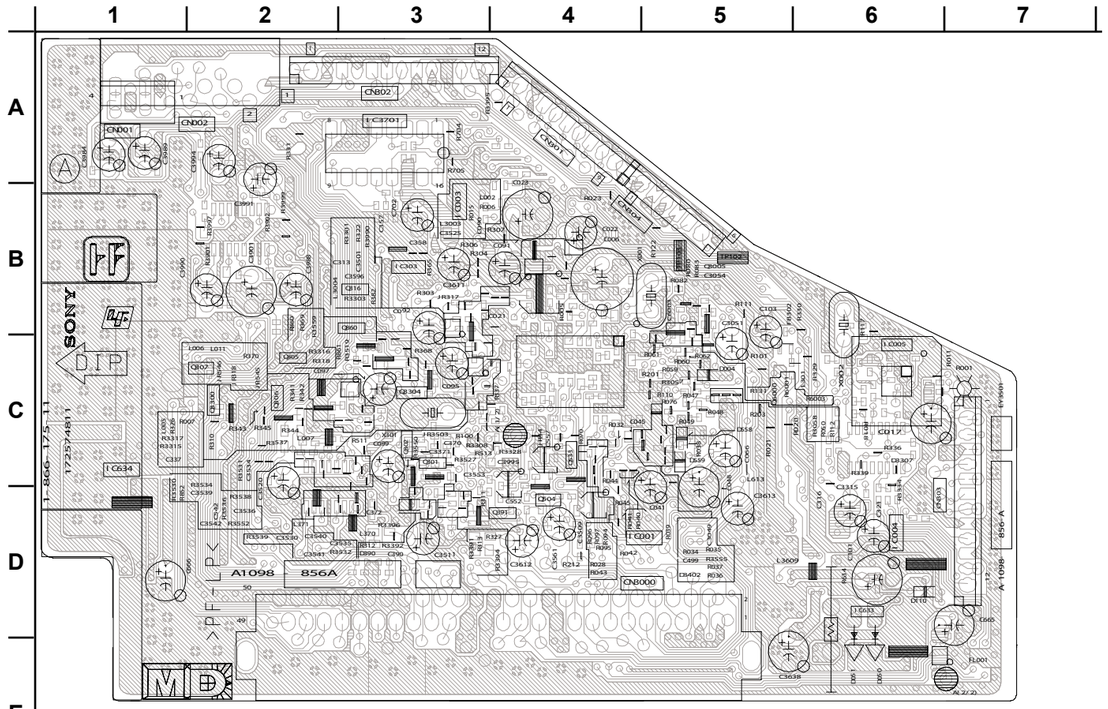


MD BOARD WAVEFORMS



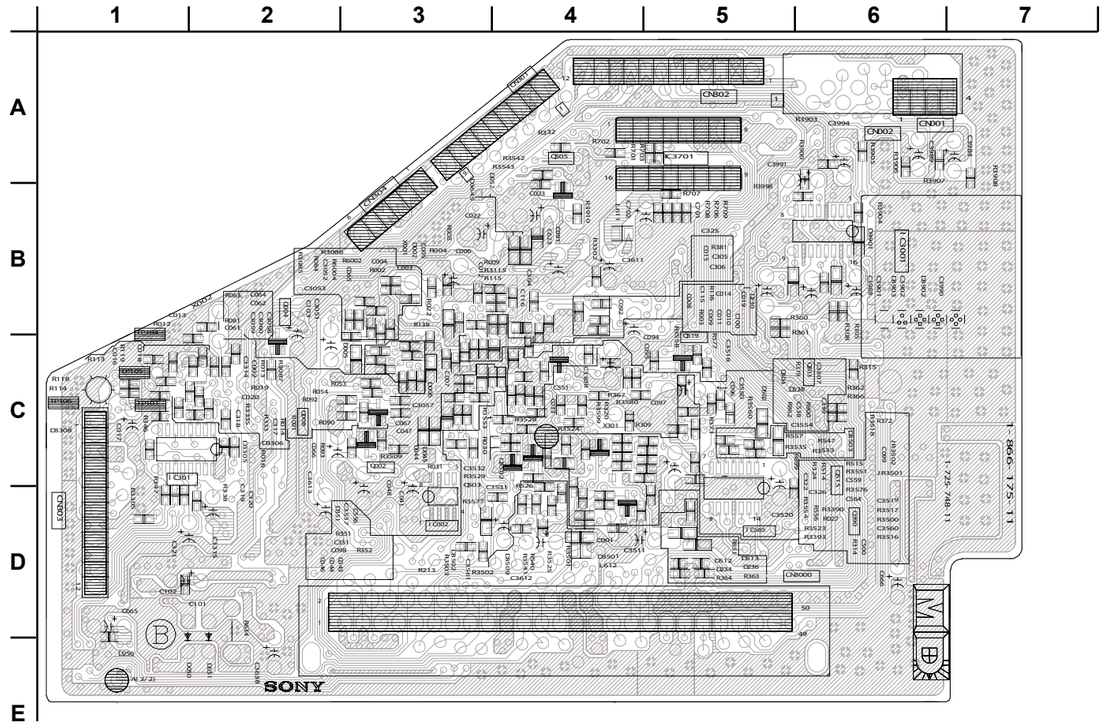
MD [MICRO, TUNING CONTROL, Y/C/J]

COMPONENT SIDE



MD [MICRO, TUNING CONTROL, Y/C/J]

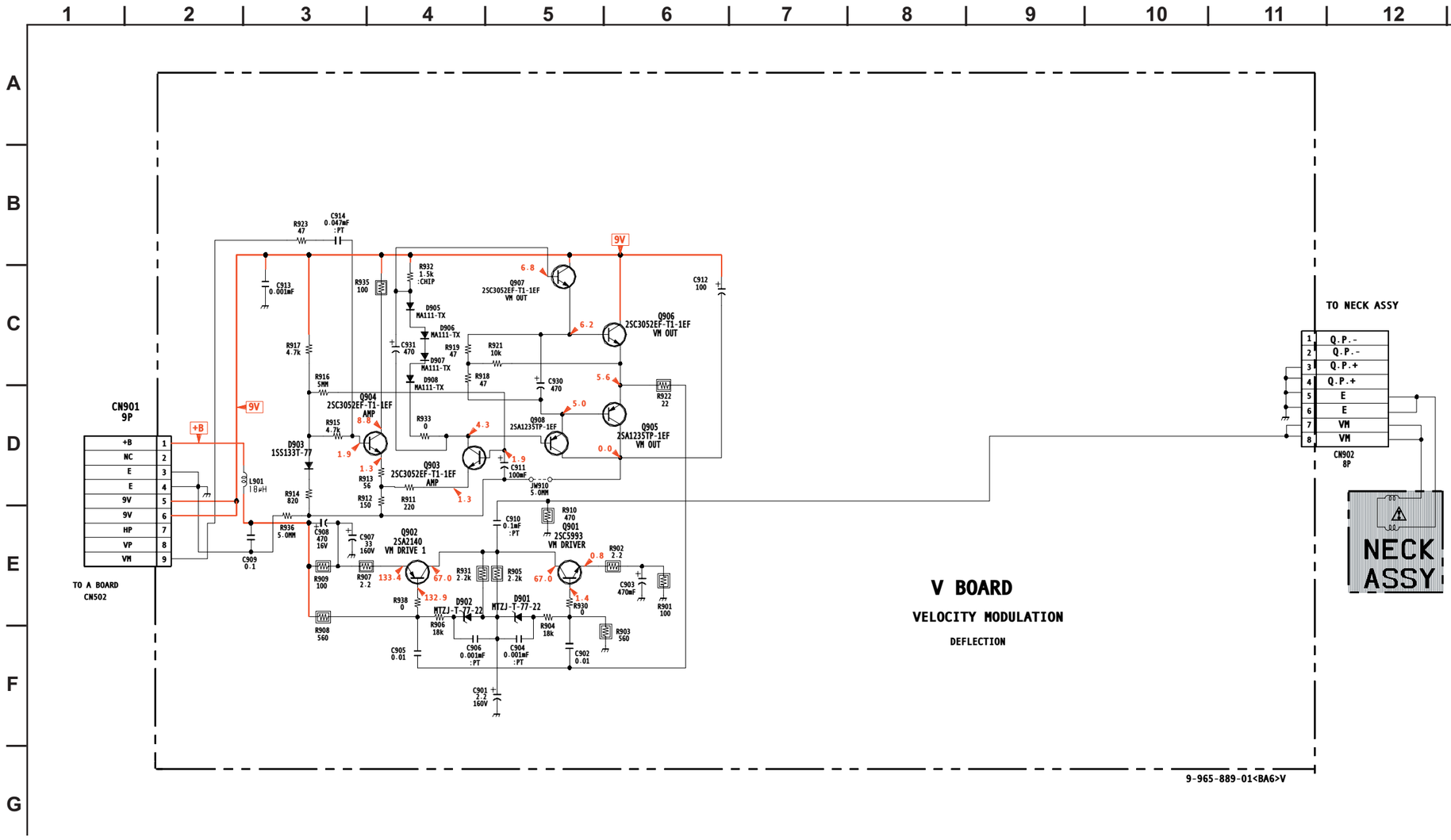
CONDUCTOR SIDE



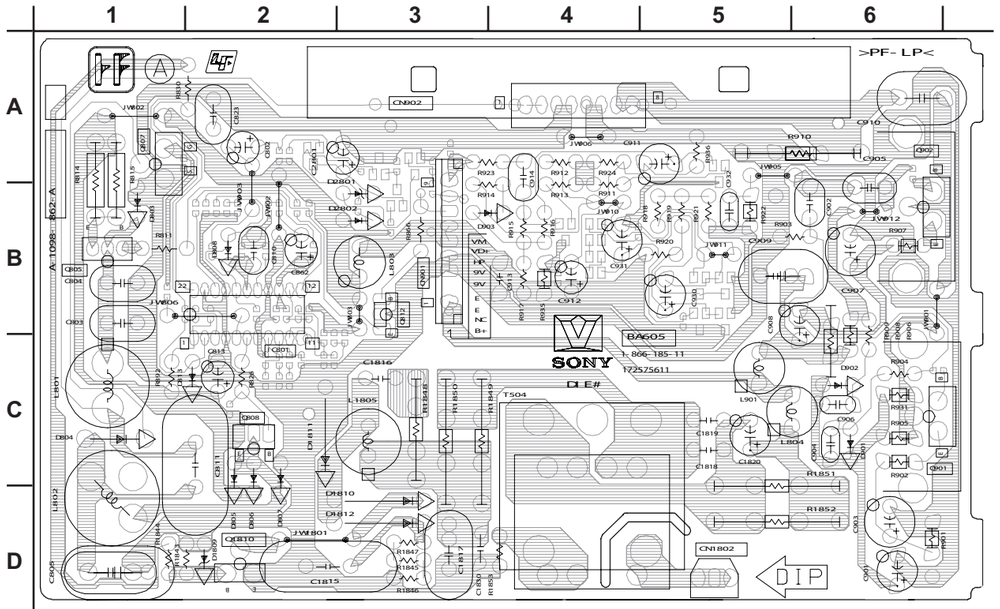
MD BOARD LOCATOR LIST

DIODE			IC			TRANSISTOR		
	COMP	COND		COMP	COND		COMP	COND
D002		B-3	**IC001**	C-4		**Q002**		C-3
D004	C-5		**IC002**		D-3	**Q004**		B-2
D005		C-3	**IC003**	B-3		**Q008**		C-2
D006		C-3	**IC004**	D-6		**Q017**		
D044		C-3	**IC005**	C-6		**Q301**	C-3	
D045		C-3	**IC301**		C-1	**Q303**		C-6
D050		E-2	**IC565**		D-5	**Q305**	C-2	
D051		E-2	**IC633**	D-6		**Q306**	C-2	
D052		B-4	**IC701**		A-5	**Q307**	C-2	
D110	D-6		**IC3001**		B-6	**Q316**	B-3	
D250		E-1				**Q390**		D-6
D304		C-5				**Q391**	D-4	
D351		D-3				**Q503**		C-3
D390	D-3					**Q504**	D-4	
D512		D-5				**Q505**		A-4
D513		D-5				**Q515**		C-6
D558	C-5					**Q519**		C-5
D559	C-5					**Q533**	C-4	
D3305		C-2				**Q860**	B-3	
D3306		C-2				**Q3005**	B-5	
D3307	C-6					**Q3300**	C-2	
D3308		C-1				**Q3304**	C-3	
D3501		D-4				**Q3502**		C-4
D3502		D-3				**Q6000**	C-5	
D3509		D-4						

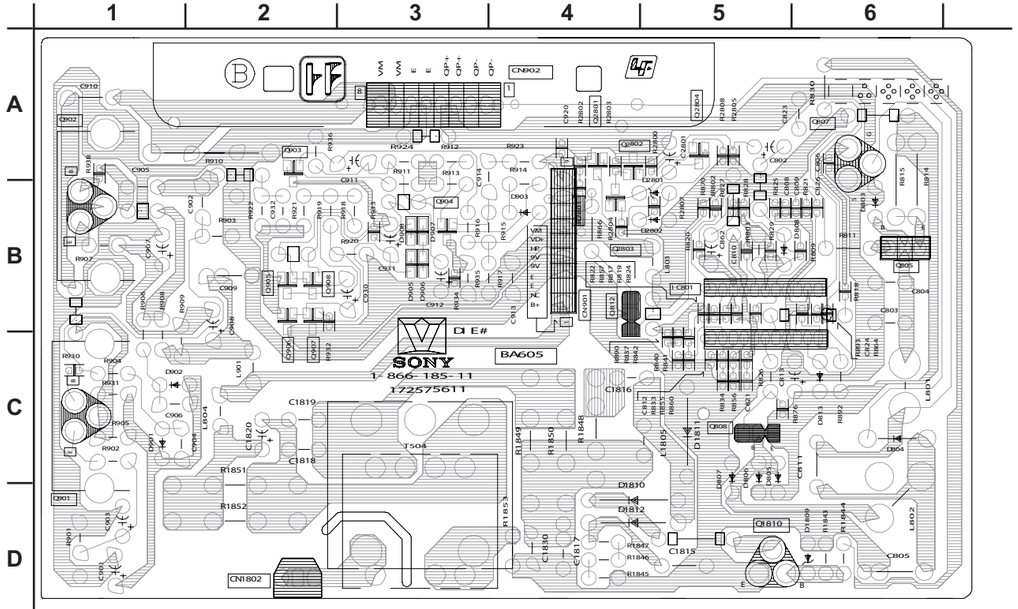
V BOARD SCHEMATIC DIAGRAM



V [VELOCITY MODULATION, DEFLECTION]
COMPONENT SIDE

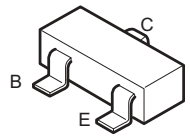


V [VELOCITY MODULATION, DEFLECTION]
CONDUCTOR SIDE

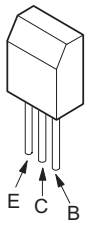


5-4. SEMICONDUCTORS

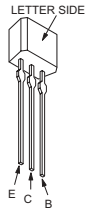
2SB709A-QRS-TX
2SD601A-QRS-TX



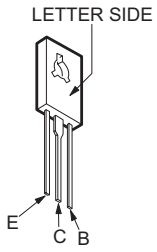
2SB734-T-34
2SC3209LK-TP



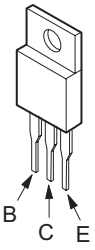
2SA1309A-QRSTA
2SC3311A-QRSTA
2SD2144S-TP-UVW



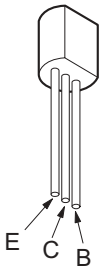
2SC3840K



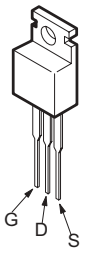
2SA1837



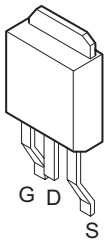
2SA1091O-TPE2



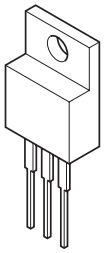
IRF614



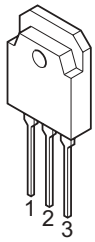
2SK2663



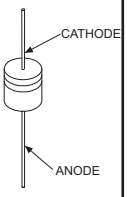
2SC4793



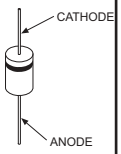
2SD2578-YB



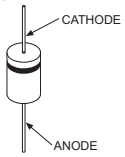
ERA38-06TP1
ERA82-004TP5
1SS133T-77
D1NS0R-TA
MTZJ-T-77-12C
MTZJ-T-77-15B
MTZJ-T-77-33B
MTZJ-T-77-39



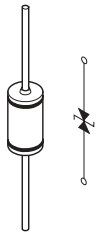
RU-1P
ERC06-15S
EGP20DPKG23
MTZJ-T-77-5.1C
MTZJ-T-77-5.6C
MTZJ-T-77-7.5A
MTZJ-T-77-10B
MTZJ-T-77-30D
RGP10-GPKG3
RGP02-17PKG23
RGP15GPKG23



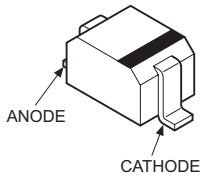
ERB44-06TP1
1SS83TD
GP08DPKG23
RGP10GPKG23
RU4AM-T3



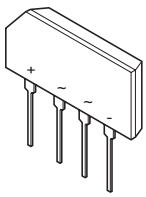
RD9.1EW-T1



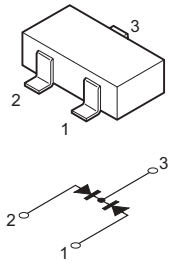
MA111-TX
UDZ-TE-17.5.1B
UDZ-TE-17.91B



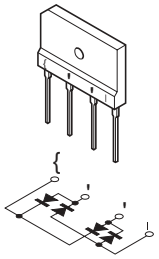
D2SB60A-F04



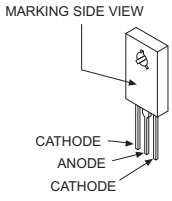
DAP202K-T-146



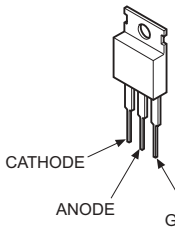
D4SB60L-F



D5LC20U



TF541M



SECTION 6: EXPLODED VIEWS

Components not identified by a part number or description are not stocked because they are seldom required for routine service.

The component parts of an assembly are indicated by the reference numbers in the far right column of the parts list and within the dotted lines of the diagram.

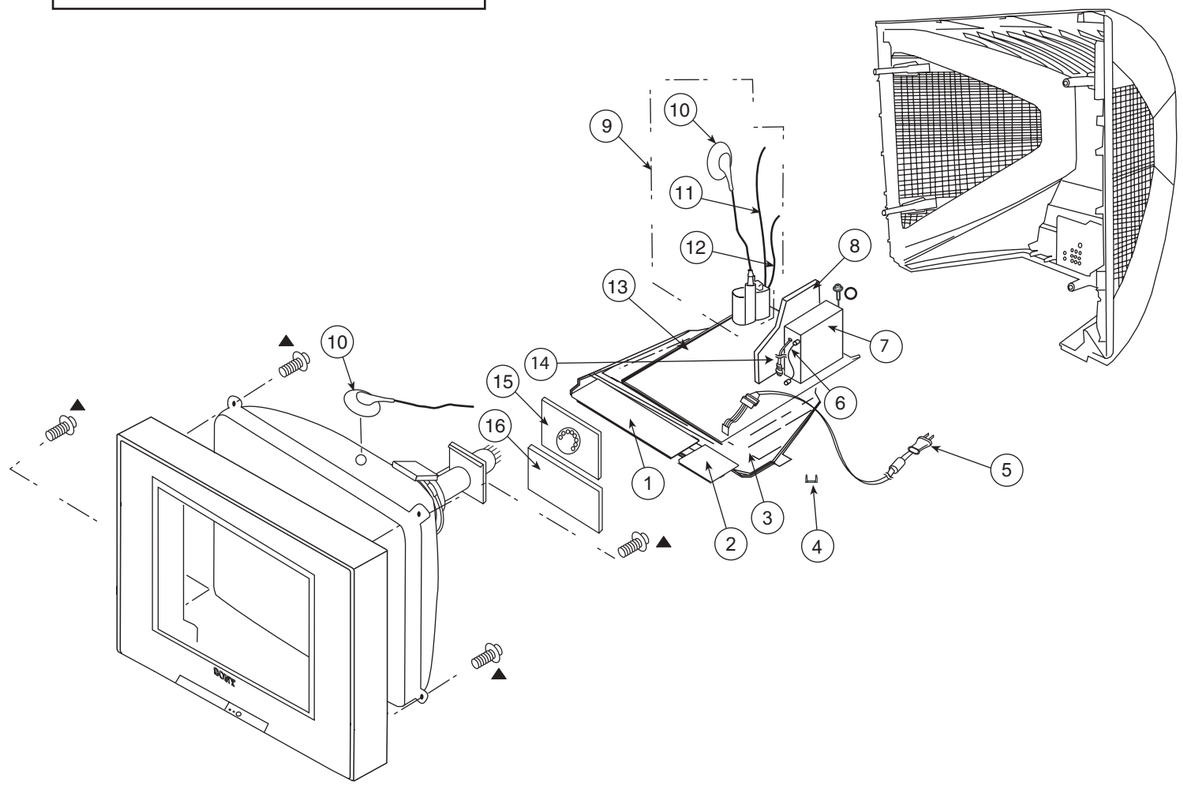
* Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-1. CHASSIS

▲	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER
○	3-669-145-02	SCREW



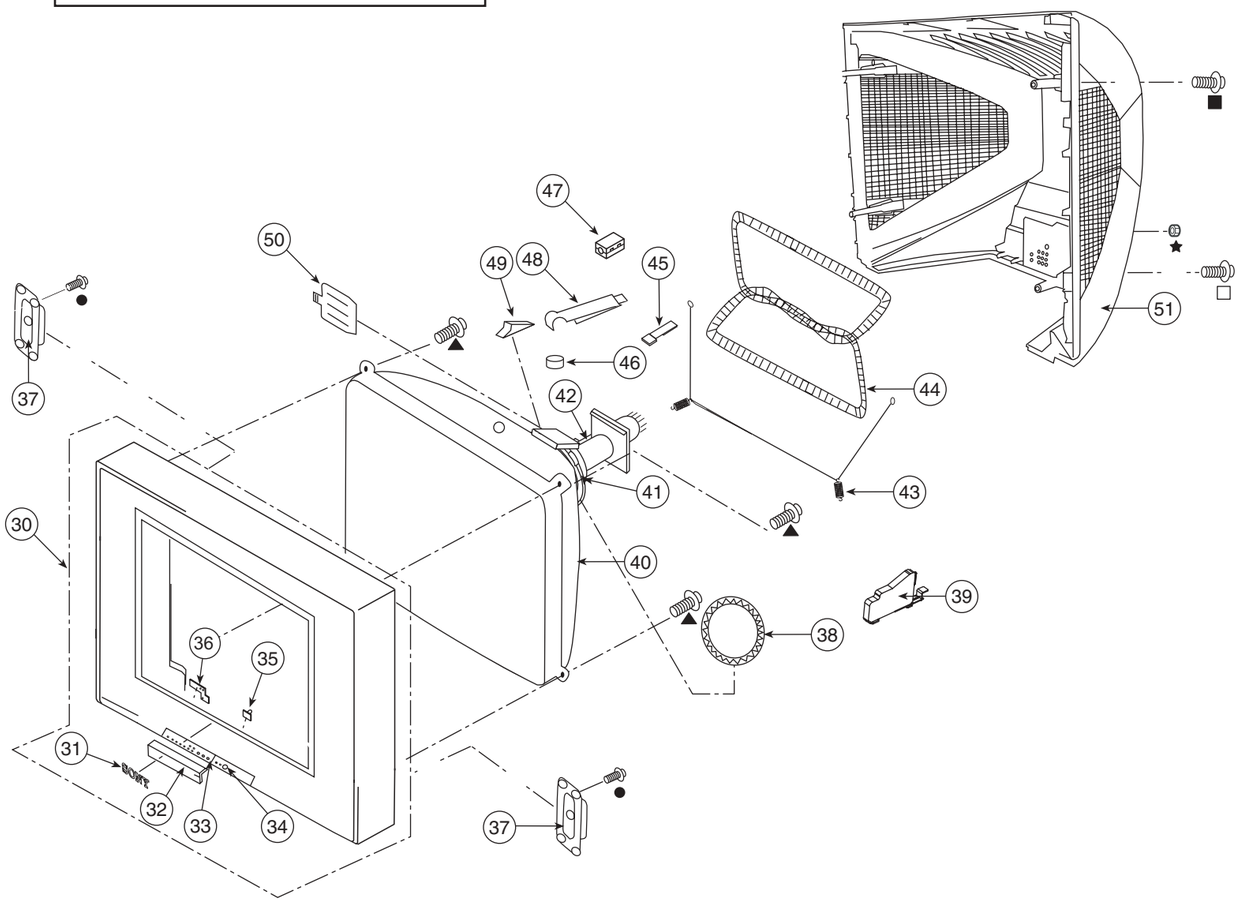
	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
	1	A-1104-994-A	HS (VAR) BOARD, MOUNTED	
	2	A-1154-657-A	GS (VAR) BOARD, MOUNTED	
*	3	4-089-054-71	BOARD, BOTTOM	
*	4	4-076-951-01	HINGE, PWB	
⚠	5	1-830-659-11	CORD, POWER (WITH NOISE FILTER)	
*	6	1-830-656-11	USB CABLE	
	7	A-1109-086-A	DMB COMPLETE ASSY	
	8	A-1147-045-A	MD (VAR) BOARD, MOUNTED	
⚠	9	1-453-310-11	FBT ASSY NX-4521//X	[10-12]
⚠	10	1-251-715-22	CAP ASSY, HIGH-VOLTAGE	
⚠	11	1-900-803-22	WIRE ASSY, G2 LEAD	
⚠	12	1-900-800-82	WIRE ASSY, FOCUS	
	13	A-1147-254-A	A BOARD, COMPLETE	
		The high-voltage leads associated with the FBT on this A board are not included and must be ordered separately. (See 10-12)		
*	14	1-830-657-11	P-F CABLE	
	15	A-1147-735-A	C (VAR) BOARD, MOUNTED	
	16	A-1157-081-A	V (VAR) BOARD, MOUNTED	

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

6-2. PICTURE TUBE

▲	4-046-765-12	SCREW, TAPPING 7+CROWN WASHER
■	7-685-663-79	SCREW +BVTP 4X16 TYPE2 TT(B)
□	7-685-648-79	SCREW +BVTP 3X12 TYPE2 TT(B)
●	4-388-477-01	SCREW(3X16),TAPPING,+BV WASHER
★	3-682-691-00	NUT, WASHER HEXAGO



	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
	30	X-2102-721-1	BEZNET ASSY	[31-36]
	31	4-046-160-31	EMBLEM, SONY NO.9	
	32	4-089-056-21	DOOR	
	33	4-089-016-01	LABEL, DOOR	
	34	4-089-057-21	BUTTON, POWER	
	35	4-089-058-11	GUIDE, LED	
*	36	4-083-303-01	SPRING, METAL	
	37	1-825-206-12	LOUDSPEAKER (6X12CM)	
⚠	38	1-452-896-11	COIL, NA ROTATION (RT-200)	
	39	4-089-062-02	SUPPORTER, CRT	

	REF. NO.	PART NO.	DESCRIPTION	[ASSEMBLY INCLUDES]
⚠	40	8-735-041-05	CRT 29RSN M68LNH010X	
⚠	41	8-451-494-41	DY Y29RSA-V	
⚠	42	8-453-011-11	NECK ASSEMBLY NA299-M	
	43	4-036-329-01	SPRING (B), TENSION	
⚠	44	1-419-156-22	COIL, DEGAUSSING	
	45	4-083-414-01	PIECE A(110), CONV CORRECT	
	46	1-452-885-11	MAGNET, LANDING	
	47	1-500-082-11	CLAMP, SLEEVE FERRITE	
*	48	4-062-970-12	CLIP (29RSN), DGC	
	49	4-046-600-11	SPACER, DY	
	50	4-081-170-01	PLATE, TLH CORRECTION	
	51	4-089-050-91	COVER, REAR	

SECTION 7: ELECTRICAL PARTS LIST

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

The components in this manual identified by the following symbol: ⋈ indicate parts that have been carefully factory-selected to satisfy regulations regarding X-ray radiation for each set.

Should replacement be required for one of these components, replace only with the value originally used.

*** Items marked with an asterisk are not stocked since they are seldom required for routine service. Expect some delay when ordering these components.**

RESISTORS
- **All resistors are in ohms**
- **F : nonflammable**
- **All variable and adjustable resistors have characteristic curve B, unless otherwise noted.**

When ordering parts by reference number, please include the board name.

A

A-1147-254-A A BOARD, COMPLETE

The high-voltage leads associated with the FBT on this A board are not included and must be ordered separately.

REF. NO.	PART NO.	DESCRIPTION	VALUES
⚠	1-251-715-22	CAP ASSY, HIGH-VOLTAGE	
⚠	1-900-803-22	WIRE ASSY, G2 LEAD	
⚠	1-900-800-82	WIRE ASSY, FOCUS	
*	4-374-846-11	COVER, CAPACITOR, CAP TYPE	
	4-382-854-11	SCREW (M3X10), P, SW (+)	

CAPACITOR

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C049	1-126-964-11	ELECT	10µF	20%	50V
C052	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C053	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C056	1-135-834-91	CERAMIC CHIP	2.2E+06pF		6.3V
C057	1-135-834-91	CERAMIC CHIP	2.2E+06pF		6.3V
C080	1-128-934-91	CERAMIC CHIP	0.33µF	20%	10V
C081	1-128-934-91	CERAMIC CHIP	0.33µF	20%	10V
C200	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C201	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C202	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C203	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C206	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C207	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C208	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C209	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C212	1-126-963-11	ELECT	4.7µF	20%	50V
C213	1-126-963-11	ELECT	4.7µF	20%	50V
C307	1-126-964-11	ELECT	10µF	20%	50V
C308	1-126-964-11	ELECT	10µF	20%	50V
C309	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C310	1-126-964-11	ELECT	10µF	20%	50V
C312	1-126-964-11	ELECT	10µF	20%	50V
C314	1-126-964-11	ELECT	10µF	20%	50V
C315	1-126-964-11	ELECT	10µF	20%	50V
C362	1-126-964-11	ELECT	10µF	20%	50V
C365	1-162-117-00	CERAMIC	100pF	10%	500V
C366	1-126-964-11	ELECT	10µF	20%	50V
C367	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C368	1-126-964-11	ELECT	10µF	20%	50V
C373	1-126-947-11	ELECT	47µF	20%	35V
C374	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C400	1-128-934-91	CERAMIC CHIP	0.33µF	20%	10V
C401	1-164-227-11	CERAMIC CHIP	0.022µF	10%	25V
C402	1-164-174-11	CERAMIC CHIP	0.0082µF	10%	25V
C403	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C404	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C405	1-164-677-11	CERAMIC CHIP	0.033µF	10%	16V
C406	1-164-677-11	CERAMIC CHIP	0.033µF	10%	16V
C407	1-115-412-11	CERAMIC CHIP	680pF	5%	25V
C408	1-115-412-11	CERAMIC CHIP	680pF	5%	25V
C409	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C410	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C411	1-128-934-91	CERAMIC CHIP	0.33µF	20%	10V
C412	1-126-961-11	ELECT	2.2µF	20%	50V
C413	1-126-960-11	ELECT	1µF	20%	50V
C414	1-126-960-11	ELECT	1µF	20%	50V
C415	1-126-960-11	ELECT	1µF	20%	50V
C416	1-126-960-11	ELECT	1µF	20%	50V
C417	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C418	1-126-963-11	ELECT	4.7µF	20%	50V

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

A

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C420	1-126-960-11	ELECT	1µF	20%	50V
C421	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C422	1-126-947-11	ELECT	47µF	20%	35V
C423	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C431	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C432	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C433	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C434	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C450	1-100-120-51	ELECT	1000µF	20%	35V
C451	1-137-194-81	FILM	0.47µF	5%	50V
C456	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C458	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C461	1-126-965-91	ELECT	22µF	20%	50V
C463	1-126-963-11	ELECT	4.7µF	20%	50V
C466	1-126-935-11	ELECT	470µF	20%	16V
C467	1-126-935-11	ELECT	470µF	20%	16V
C468	1-126-935-11	ELECT	470µF	20%	16V
C470	1-126-935-11	ELECT	470µF	20%	16V
C472	1-126-935-11	ELECT	470µF	20%	16V
C473	1-125-891-11	CERAMIC CHIP	0.47µF	10%	10V
C476	1-126-964-11	ELECT	10µF	20%	50V
C480	1-126-960-11	ELECT	1µF	20%	50V
C502	1-126-959-11	ELECT	0.47µF	20%	50V
C503	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C504	1-102-228-00	CERAMIC	470pF	10%	500V
C505	1-102-228-00	CERAMIC	470pF	10%	500V
C506	1-106-383-00	MYLAR	0.047µF	10%	200V
⚠ C507	1-162-116-00	CERAMIC	680pF	10%	2KV
⚠ C509	1-162-116-00	CERAMIC	680pF	10%	2KV
⚠ C510	1-137-150-11	FILM	0.01µF	5%	100V
⚠ C511	1-136-086-00	FILM	17000pF	3%	1.2KV
C512	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
⚠ C513	1-129-722-00	FILM	0.047µF	5%	630V
⚠ C514	1-109-844-11	FILM	0.68µF	5%	400V
C515	1-104-987-11	MYLAR	0.001µF	5%	200V
⚠ C516	1-115-521-11	FILM	0.82µF	5%	250V
C517	1-107-649-11	ELECT	2.2µF	20%	250V
C518	1-106-387-00	MYLAR	0.068µF	10%	200V
C519	1-102-244-00	CERAMIC	220pF	10%	500V
C520	1-165-136-11	CERAMIC	3300pF	10%	500V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C522	1-126-960-11	ELECT	1µF	20%	50V
C523	1-126-934-11	ELECT	220µF	20%	16V
C525	1-102-244-00	CERAMIC	220pF	10%	500V
C526	1-107-662-11	ELECT	22µF	20%	350V
⚠ C527	1-162-116-00	CERAMIC	680pF	10%	2KV
C528	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C529	1-104-662-91	ELECT	22µF	20%	25V
C530	1-164-690-91	CERAMIC CHIP	0.0022µF	5%	50V
C531	1-126-965-91	ELECT	22µF	20%	50V
C532	1-126-965-91	ELECT	22µF	20%	50V
C534	1-126-967-11	ELECT	47µF	20%	50V
C535	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C537	1-126-941-11	ELECT	470µF	20%	25V
C539	1-126-941-11	ELECT	470µF	20%	25V
C540	1-131-867-51	ELECT	100µF		160V
C541	1-128-560-11	ELECT	22µF	20%	100V
C545	1-106-387-00	MYLAR	0.068µF	10%	200V
⚠ C553	1-117-412-11	FILM	0.24µF	5%	250V
⚠ C554	1-117-629-11	FILM	2700pF	3%	1.2KV
C561	1-126-967-11	ELECT	47µF	20%	50V
C563	1-104-666-11	ELECT	220µF	20%	25V
C565	1-126-969-11	ELECT	220µF	20%	50V
C568	1-137-190-91	FILM	0.22µF	5%	50V
⚠ C581	1-165-529-11	MYLAR	0.22µF	10	275V
C588	1-130-491-00	MYLAR	0.047µF	5%	50V
C590	1-126-964-11	ELECT	10µF	20%	50V
⚠ C601	1-165-529-11	MYLAR	0.22µF	10	275V
C602	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
⚠ C603	1-165-529-11	MYLAR	0.22µF	10	275V
C604	1-164-625-11	CERAMIC	680pF	10%	500V
⚠ C608	1-119-912-51	CERAMIC	0.001µF	20%	125V
C609	1-164-625-11	CERAMIC	680pF	10%	500V
C612	1-104-665-11	ELECT	100µF	20%	25V
C616	1-126-943-11	ELECT	2200µF	20%	25V
C617	1-123-024-21	ELECT	33µF		160V
C620	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C621	1-100-961-11	ELECT	680µF	20%	250V
⚠ C622	1-119-912-51	CERAMIC	0.001µF	20%	125V
C629	1-100-961-11	ELECT	680µF	20%	250V
C632	1-126-943-11	ELECT	2200µF	20%	25V

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

A

	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	C633	1-136-479-11	FILM	0.001µF	5%	100V
	C634	1-126-964-11	ELECT	10µF	20%	50V
	C635	1-126-963-11	ELECT	4.7µF	20%	50V
	C637	1-136-165-00	FILM	0.1µF	5%	50V
	C638	1-126-943-11	ELECT	2200µF	20%	25V
	C642	1-126-969-11	ELECT	220µF	20%	50V
	C643	1-136-165-00	FILM	0.1µF	5%	50V
	C645	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
	C647	1-126-947-11	ELECT	47µF	20%	35V
	C648	1-164-143-11	CERAMIC	0.001µF	10%	1KV
	C649	1-164-143-11	CERAMIC	0.001µF	10%	1KV
	C650	1-100-120-51	ELECT	1000µF	20%	35V
	C651	1-126-942-61	ELECT	1000µF	20%	25V
	C652	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
	C653	1-126-964-11	ELECT	10µF	20%	50V
	C656	1-161-964-91	CERAMIC	0.0047µF		250V
	C658	1-161-964-91	CERAMIC	0.0047µF		250V
	C659	1-164-677-11	CERAMIC CHIP	0.033µF	10%	16V
	C661	1-126-947-11	ELECT	47µF	20%	35V
	C669	1-164-625-11	CERAMIC	680pF	10%	500V
	C670	1-164-625-11	CERAMIC	680pF	10%	500V
	C672	1-165-953-11	FILM	47000pF	3%	800V
	C690	1-126-971-11	ELECT	470µF	20%	50V
		CONNECTOR				
*	CN101	1-818-747-11	PIN, CONNECTOR	12P		
	CN202	1-695-915-11	TAB (CONTACT)			
*	CN401	1-564-507-11	PLUG, CONNECTOR	4P		
*	CN501	1-580-798-11	CONNECTOR PIN (DY)	6P		
*	CN503	1-564-510-11	PLUG, CONNECTOR	7P		
*	CN508	1-573-963-11	PIN, CONNECTOR (PC BOARD)			
⚠*	CN600	1-580-843-11	PIN, CONNECTOR (POWER)			
	CN601	1-695-915-11	TAB (CONTACT)			
	CN603	1-695-915-11	TAB (CONTACT)			
	CN604	1-695-915-11	TAB (CONTACT)			
		DIODE				
	D200	8-719-069-60	DIODE	UDZSTE-179.1B		
	D201	8-719-069-60	DIODE	UDZSTE-179.1B		
	D209	8-719-069-60	DIODE	UDZSTE-179.1B		
	D210	8-719-069-60	DIODE	UDZSTE-179.1B		
	D211	8-719-069-60	DIODE	UDZSTE-179.1B		
	D212	8-719-069-60	DIODE	UDZSTE-179.1B		
	D213	8-719-510-02	DIODE	D1NS4		
	D218	8-719-929-15	DIODE	HZS9.1NB2		
	D219	8-719-929-15	DIODE	HZS9.1NB2		
	D305	8-719-070-62	DIODE	PDZ9.1B-115		
	D306	8-719-070-62	DIODE	PDZ9.1B-115		
	D307	8-719-070-62	DIODE	PDZ9.1B-115		
	D308	8-719-977-28	DIODE	DTZ10B		
	D318	8-719-069-60	DIODE	UDZSTE-179.1B		
	D319	8-719-069-60	DIODE	UDZSTE-179.1B		
	D320	8-719-069-60	DIODE	UDZSTE-179.1B		
	D321	8-719-069-60	DIODE	UDZSTE-179.1B		
	D322	8-719-069-60	DIODE	UDZSTE-179.1B		
	D323	8-719-069-60	DIODE	UDZSTE-179.1B		
	D400	8-719-404-50	DIODE	MA111-TX		
	D401	8-719-069-60	DIODE	UDZSTE-179.1B		
	D402	8-719-069-60	DIODE	UDZSTE-179.1B		
	D405	8-719-404-50	DIODE	MA111-TX		
	D414	8-719-921-63	DIODE	MTZJ-7.5B		
	D418	1-216-864-11	SHORT CHIP			
	D422	1-216-809-11	METAL CHIP	100	5%	1/10W
	D423	8-719-404-50	DIODE	MA111-TX		
	D424	8-719-404-50	DIODE	MA111-TX		
	D425	8-719-056-84	DIODE	UDZ-TE-17-7.5B		
	D500	8-719-945-80	DIODE	ERC06-15S		
	D501	8-719-404-50	DIODE	MA111-TX		
⚠	D503	8-719-081-00	DIODE	BY228/A52A/		
	D504	6-500-485-01	DIODE	FR305G-EB		
	D505	8-719-908-03	DIODE	GP08D		
	D506	8-719-908-03	DIODE	GP08D		
	D508	8-719-404-50	DIODE	MA111-TX		
	D509	8-719-404-50	DIODE	MA111-TX		
⚠	D515	8-719-075-41	DIODE	PR1004GT		
	D516	8-719-404-50	DIODE	MA111-TX		
	D518	8-719-404-50	DIODE	MA111-TX		
⚠	D519	8-719-302-43	DIODE	EL1Z		
	D520	8-719-404-50	DIODE	MA111-TX		
	D521	8-719-921-63	DIODE	MTZJ-7.5B		
	D522	8-719-404-50	DIODE	MA111-TX		
	D525	8-719-404-50	DIODE	MA111-TX		

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	REF. NO.	PART NO.	DESCRIPTION	VALUES	
	D526	8-719-404-50	DIODE	MA111-TX	
⚠	D530	6-500-531-01	DIODE	PG154R	
	D531	6-500-531-01	DIODE	PG154R	
	D534	8-719-074-25	DIODE	PG104R	
	D535	8-719-404-50	DIODE	MA111-TX	
	D551	8-719-069-55	DIODE	UDZSTE-175.6B	
	D561	8-719-075-33	DIODE	1N4003GA	
	D580	8-719-991-33	DIODE	1SS133T-77	
	D588	8-719-404-50	DIODE	MA111-TX	
	D589	8-719-404-50	DIODE	MA111-TX	
	D590	8-719-404-50	DIODE	MA111-TX	
	D600	8-719-510-53	DIODE	D4SB60L	
	D602	8-719-064-12	DIODE	S1NB60-4062	
	D611	8-719-062-40	DIODE	D4SBL20µF3	
	D612	8-719-068-00	DIODE	ERC04-06SE	
	D613	8-719-068-00	DIODE	ERC04-06SE	
	D614	8-719-057-52	DIODE	EZ0150AV1	
	D615	8-719-062-40	DIODE	D4SBL20µF3	
	D618	8-719-979-64	DIODE	µF4005/23	
	D620	8-719-404-50	DIODE	MA111-TX	
	D621	6-500-434-01	DIODE	D15SCA4M	
	D628	8-719-404-50	DIODE	MA111-TX	
	D629	8-719-083-82	DIODE	UDZS-TE17-12B	
	D631	6-500-567-01	DIODE	10ERB20-TA1B2	
	D640	8-719-404-50	DIODE	MA111-TX	
	D641	8-719-404-50	DIODE	MA111-TX	
	D645	6-500-567-01	DIODE	10ERB20-TA1B2	
	D646	8-719-404-50	DIODE	MA111-TX	
	D647	6-500-567-01	DIODE	10ERB20-TA1B2	
	D651	8-719-109-93	DIODE	RD6.2ESB2	
	D690	8-719-982-13	DIODE	MTZJ-27	
		FUSE			
⚠	F601	1-576-193-11	FUSE	6.3A	125V
		FERRITE BEAD			
	FB501	1-412-911-11	FERRITE	0µH	
	FB502	1-412-911-11	FERRITE	0µH	
	FB503	1-412-911-11	FERRITE	0µH	
	FB505	1-412-911-11	FERRITE	0µH	
	FB602	1-412-911-11	FERRITE	0µH	
	FB604	1-412-911-11	FERRITE	0µH	
	FB613	1-410-397-21	FERRITE	1.1µH	
	FB614	1-412-911-11	FERRITE	0µH	
	FB616	1-412-911-11	FERRITE	0µH	
	FB617	1-412-911-11	FERRITE	0µH	
		FUSE HOLDER			
⚠	FH1	1-533-223-11	FUSE HOLDER	0A	0V
⚠	FH2	1-533-223-11	FUSE HOLDER	0A	0V
		IC			
	IC302	8-759-353-00	IC	NJM2534M(TE2)	
	IC303	8-759-443-11	IC	NJM2283M-TE1	
	IC400	6-703-190-01	IC	NJW1134AGK1-TE2	
	IC401	6-705-054-01	IC	TDA8947J/N3	
	IC501	8-759-700-07	IC	NJM2903M	
⚠	IC561	8-759-980-58	IC	TDA8172	
	IC600	6-705-810-01	IC	MCZ3001DB	
	IC601	8-749-017-76	IC	DM-58M	
	IC609	8-759-653-07	IC	PQ09RD21J00H	
		JACK			
*	J201	1-818-351-11	S TERMINAL BLOCK		
*	J205	1-818-012-11	PIN JACK BLOCK	10P	
	J207	1-794-116-11	JACK BLOCK, PIN	2P	
		CHIP CONDUCTOR			
	JR1	1-216-864-11	SHORT CHIP		
	JR2	1-216-864-11	SHORT CHIP		
	JR3	1-216-864-11	SHORT CHIP		
	JR4	1-216-864-11	SHORT CHIP		
	JR9	1-216-864-11	SHORT CHIP		
	JR10	1-216-864-11	SHORT CHIP		
	JR16	1-216-864-11	SHORT CHIP		
	JR301	1-216-864-11	SHORT CHIP		
	JR410	1-216-864-11	SHORT CHIP		
	JR411	1-216-864-11	SHORT CHIP		
	JR444	1-216-864-11	SHORT CHIP		
	JR445	1-216-864-11	SHORT CHIP		
	JR501	1-216-864-11	SHORT CHIP		
	JR502	1-216-864-11	SHORT CHIP		

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	REF. NO.	PART NO.	DESCRIPTION	VALUES
		COIL		
	L501	1-406-677-11	INDUCTOR	10MH
	L502	1-412-552-11	INDUCTOR	2.2MH
	L503	1-406-677-11	INDUCTOR	10MH
⚠	L505	1-419-714-11	INDUCTOR	100µH
	L511	1-409-955-31	INDUCTOR	8MH
	L515	1-412-529-11	INDUCTOR	22µH
	L517	1-412-552-11	INDUCTOR	2.2MH
	L604	1-412-525-31	INDUCTOR	10µH
	L605	1-412-911-11	FERRITE	0µH
	L606	1-412-911-11	FERRITE	0µH
	L608	1-412-529-11	INDUCTOR	22µH
	L609	1-412-529-11	INDUCTOR	22µH
		PHOTO COUPLER		
⚠	PH602	8-749-924-35	PHOTO COUPLER	ON3171-R
		IC LINK		
	PS401	1-576-337-21	IC LINK	2.7A 50V
	PS609	1-532-984-11	IC LINK	2A 50V
	PS614	1-532-984-11	IC LINK	2A 50V
		TRANSISTOR		
	Q005	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q101	8-729-600-22	TRANSISTOR	2SA1235-F
	Q300	8-729-600-22	TRANSISTOR	2SA1235-F
	Q304	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q401	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q402	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q403	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q405	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q412	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q466	8-729-600-22	TRANSISTOR	2SA1235-F
	Q467	8-729-600-22	TRANSISTOR	2SA1235-F
	Q468	8-729-600-22	TRANSISTOR	2SA1235-F
	Q469	8-729-600-22	TRANSISTOR	2SA1235-F
	Q470	8-729-600-22	TRANSISTOR	2SA1235-F
	Q471	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q472	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q501	8-729-140-50	TRANSISTOR	2SC3209LK
⚠	Q502	6-550-107-01	TRANSISTOR	2SD2645-YB
	Q509	8-729-120-28	TRANSISTOR	2SC1623-L5L6
⚠	Q511	8-729-120-28	TRANSISTOR	2SC1623-L5L6

	REF. NO.	PART NO.	DESCRIPTION	VALUES
⚠	Q512	8-729-809-29	TRANSISTOR	2SC4159-E
	Q530	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q531	8-729-600-22	TRANSISTOR	2SA1235-F
	Q532	6-550-362-01	TRANSISTOR	KTA1279
	Q561	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q562	8-729-600-22	TRANSISTOR	2SA1235-F
	Q564	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q582	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q583	8-729-600-22	TRANSISTOR	2SA1235-F
	Q600	6-550-882-01	TRANSISTOR	2SK3568(LBS2SONY,Q
	Q601	6-550-882-01	TRANSISTOR	2SK3568(LBS2SONY,Q
	Q605	8-729-140-96	TRANSISTOR	2SD774-34
	Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6
	Q608	8-729-922-37	TRANSISTOR	2SD2144S-UVW
	Q611	6-550-409-01	TRANSISTOR	KSC2383-O
	Q690	8-729-600-22	TRANSISTOR	2SA1235-F
	Q691	8-729-026-39	TRANSISTOR	2SA933AS-QT
		RESISTOR		
	R84	1-249-377-11	CARBON	0.47 5% 1/4W
	R086	1-216-839-11	METAL CHIP	33K 5% 1/10W
	R087	1-216-837-11	METAL CHIP	22K 5% 1/10W
	R089	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
	R101	1-216-825-11	METAL CHIP	2.2K 5% 1/10W
	R102	1-216-809-11	METAL CHIP	100 5% 1/10W
	R107	1-216-809-11	METAL CHIP	100 5% 1/10W
	R108	1-216-809-11	METAL CHIP	100 5% 1/10W
	R202	1-216-813-11	METAL CHIP	220 5% 1/10W
	R206	1-216-813-11	METAL CHIP	220 5% 1/10W
	R207	1-216-845-11	METAL CHIP	100K 5% 1/10W
	R208	1-216-813-11	METAL CHIP	220 5% 1/10W
	R209	1-216-845-11	METAL CHIP	100K 5% 1/10W
	R210	1-216-813-11	METAL CHIP	220 5% 1/10W
	R217	1-216-845-11	METAL CHIP	100K 5% 1/10W
	R218	1-216-845-11	METAL CHIP	100K 5% 1/10W
	R219	1-216-813-11	METAL CHIP	220 5% 1/10W
	R220	1-216-813-11	METAL CHIP	220 5% 1/10W
	R222	1-216-845-11	METAL CHIP	100K 5% 1/10W
	R223	1-216-813-11	METAL CHIP	220 5% 1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R224	1-216-813-11	METAL CHIP	220	5%	1/10W
R225	1-216-845-11	METAL CHIP	100K	5%	1/10W
R232	1-216-853-11	METAL CHIP	470K	5%	1/10W
R233	1-216-853-11	METAL CHIP	470K	5%	1/10W
R234	1-216-813-11	METAL CHIP	220	5%	1/10W
R235	1-216-813-11	METAL CHIP	220	5%	1/10W
R301	1-216-809-11	METAL CHIP	100	5%	1/10W
R302	1-218-839-11	METAL CHIP	470	0.50%	1/10W
R303	1-218-841-11	METAL CHIP	560	0.50%	1/10W
R315	1-218-285-11	METAL CHIP	75	5%	1/10W
R316	1-218-285-11	METAL CHIP	75	5%	1/10W
R317	1-218-285-11	METAL CHIP	75	5%	1/10W
R328	1-216-833-11	METAL CHIP	10K	5%	1/10W
R334	1-216-809-11	METAL CHIP	100	5%	1/10W
R335	1-216-821-11	METAL CHIP	1K	5%	1/10W
R359	1-216-833-11	METAL CHIP	10K	5%	1/10W
R367	1-216-864-11	SHORT CHIP			
R369	1-216-864-11	SHORT CHIP			
R390	1-216-813-11	METAL CHIP	220	5%	1/10W
R391	1-218-285-11	METAL CHIP	75	5%	1/10W
R393	1-218-285-11	METAL CHIP	75	5%	1/10W
R394	1-216-813-11	METAL CHIP	220	5%	1/10W
R395	1-216-813-11	METAL CHIP	220	5%	1/10W
R396	1-216-813-11	METAL CHIP	220	5%	1/10W
R397	1-216-813-11	METAL CHIP	220	5%	1/10W
R398	1-216-813-11	METAL CHIP	220	5%	1/10W
R400	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R402	1-216-845-11	METAL CHIP	100K	5%	1/10W
R403	1-247-807-31	CARBON	100	5%	1/4W
R404	1-216-845-11	METAL CHIP	100K	5%	1/10W
R405	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R406	1-249-393-11	CARBON	10	5%	1/4W
R408	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R410	1-216-813-11	METAL CHIP	220	5%	1/10W
R411	1-249-393-11	CARBON	10	5%	1/4W
R414	1-216-813-11	METAL CHIP	220	5%	1/10W
R416	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R422	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R424	1-216-821-11	METAL CHIP	1K	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R425	1-216-823-11	METAL CHIP	1.5K	5%	1/10W
R429	1-216-841-11	METAL CHIP	47K	5%	1/10W
R450	1-216-833-11	METAL CHIP	10K	5%	1/10W
R457	1-216-809-11	METAL CHIP	100	5%	1/10W
R458	1-216-809-11	METAL CHIP	100	5%	1/10W
R463	1-216-864-11	SHORT CHIP			
R464	1-216-837-11	METAL CHIP	22K	5%	1/10W
R466	1-216-837-11	METAL CHIP	22K	5%	1/10W
R467	1-216-837-11	METAL CHIP	22K	5%	1/10W
R468	1-216-837-11	METAL CHIP	22K	5%	1/10W
R469	1-216-837-11	METAL CHIP	22K	5%	1/10W
R470	1-216-837-11	METAL CHIP	22K	5%	1/10W
R471	1-216-837-11	METAL CHIP	22K	5%	1/10W
R472	1-249-441-11	CARBON	100K	5%	1/4W
R473	1-216-837-11	METAL CHIP	22K	5%	1/10W
R474	1-216-837-11	METAL CHIP	22K	5%	1/10W
R475	1-216-841-11	METAL CHIP	47K	5%	1/10W
R477	1-216-819-11	METAL CHIP	680	5%	1/10W
R478	1-216-833-11	METAL CHIP	10K	5%	1/10W
R479	1-216-821-11	METAL CHIP	1K	5%	1/10W
R480	1-216-809-11	METAL CHIP	100	5%	1/10W
R481	1-216-864-11	SHORT CHIP			
R482	1-216-833-11	METAL CHIP	10K	5%	1/10W
R483	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R484	1-249-429-11	CARBON	10K	5%	1/4W
R485	1-216-809-11	METAL CHIP	100	5%	1/10W
R488	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R500	1-216-813-11	METAL CHIP	220	5%	1/10W
R502	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R503	1-249-425-11	CARBON	4.7K	5%	1/4W
R504	1-243-608-71	METAL OXIDE	1.5K	5%	3W
R506	1-243-683-71	METAL OXIDE	47	5%	1W
R507	1-249-401-11	CARBON	47	5%	1/4W
R508	1-216-833-11	METAL CHIP	10K	5%	1/10W
R509	1-260-328-11	CARBON	1K	5%	1/2W
⚠ R510	1-215-908-00	METAL OXIDE	33	5%	3W
R512	1-243-531-71	METAL OXIDE	100	5%	3W
R513	1-216-841-11	METAL CHIP	47K	5%	1/10W
R514	1-216-833-11	METAL CHIP	10K	5%	1/10W
R517	1-249-415-11	CARBON	680	5%	1/4W

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

A component identified by this ⋈ symbol indicates that it has been carefully factory-selected to satisfy regulations regarding X-ray radiation. Should replacement be required, replace only with the value originally used.

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R518	1-216-833-11	METAL CHIP	10K	5%	1/10W
R519	1-249-411-11	CARBON	330	5%	1/4W
R520	1-243-531-71	METAL OXIDE	100	5%	3W
R521	1-216-815-11	METAL CHIP	330	5%	1/10W
⚠ R523	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
⚠ R524	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠ R525	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
⚠ R528	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
R529	1-218-879-11	METAL CHIP	22K	0.50%	1/10W
⋈ R530	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
⋈ R531	1-218-901-11	METAL CHIP	180K	0.50%	1/10W
R532	1-216-810-11	METAL CHIP	120	5%	1/10W
R533	1-215-879-11	METAL OXIDE	47K	5%	1W
R534	1-216-833-11	METAL CHIP	10K	5%	1/10W
R535	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
⚠ R536	1-260-288-11	CARBON	0.47	5%	1/2W
⚠ R537	1-260-288-11	CARBON	0.47	5%	1/2W
R538	1-247-887-00	CARBON	220K	5%	1/4W
R541	1-216-841-11	METAL CHIP	47K	5%	1/10W
R542	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠ R543	1-249-377-11	CARBON	0.47	5%	1/4W
R544	1-216-821-11	METAL CHIP	1K	5%	1/10W
⚠ R545	1-249-387-11	CARBON	3.3	5%	1/4W
R546	1-215-453-00	METAL	22K	1%	1/4W
R547	1-215-445-00	METAL	10K	1%	1/4W
R548	1-215-453-00	METAL	22K	1%	1/4W
R549	1-215-429-00	METAL	2.2K	1%	1/4W
⚠ R550	1-249-377-11	CARBON	0.47	5%	1/4W
R551	1-215-873-00	METAL OXIDE	4.7K	5%	1W
R552	1-243-608-71	METAL OXIDE	1.5K	5%	3W
⚠ R553	1-249-377-11	CARBON	0.47	5%	1/4W
R559	1-216-805-11	METAL CHIP	47	5%	1/10W
R561	1-215-445-00	METAL	10K	1%	1/4W
⚠ R563	1-214-798-21	METAL	1.8	1%	1/2W
R564	1-247-895-91	CARBON	470K	5%	1/4W
R565	1-215-889-00	METAL OXIDE	330	5%	2W
R566	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
⚠ R567	1-249-385-11	CARBON	2.2	5%	1/4W
R568	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R569	1-218-871-11	METAL CHIP	10K	0.50%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R570	1-216-833-11	METAL CHIP	10K	5%	1/10W
R571	1-216-833-11	METAL CHIP	10K	5%	1/10W
R572	1-216-833-11	METAL CHIP	10K	5%	1/10W
R573	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
⚠ R574	1-214-798-21	METAL	1.8	1%	1/2W
R576	1-243-523-71	METAL OXIDE	22	5%	3W
R580	1-216-845-11	METAL CHIP	100K	5%	1/10W
R583	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R584	1-249-429-11	CARBON	10K	5%	1/4W
R586	1-216-843-11	METAL CHIP	68K	5%	1/10W
R589	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R590	1-216-833-11	METAL CHIP	10K	5%	1/10W
R592	1-243-803-71	METAL OXIDE	0.33	5%	1W
R593	1-249-417-11	CARBON	1K	5%	1/4W
R594	1-249-429-11	CARBON	10K	5%	1/4W
R595	1-247-891-00	CARBON	330K	5%	1/4W
R596	1-249-441-11	CARBON	100K	5%	1/4W
R597	1-216-864-11	SHORT CHIP			
R598	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R599	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
⚠ R603	1-219-513-11	METAL	4.7M	5%	1/2W
R604	1-216-821-11	METAL CHIP	1K	5%	1/10W
R606	1-216-833-11	METAL CHIP	10K	5%	1/10W
R607	1-216-833-11	METAL CHIP	10K	5%	1/10W
R608	1-216-833-11	METAL CHIP	10K	5%	1/10W
R609	1-216-389-11	METAL OXIDE	1	5%	3W
R610	1-216-833-11	METAL CHIP	10K	5%	1/10W
R611	1-216-833-11	METAL CHIP	10K	5%	1/10W
R612	1-260-131-11	CARBON	470K	5%	1/2W
R613	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠ R615	1-202-933-61	FUSIBLE	0.1	10%	1/2W
R616	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R617	1-216-821-11	METAL CHIP	1K	5%	1/10W
R618	1-216-864-11	SHORT CHIP			
R619	1-249-377-11	CARBON	0.47	5%	1/4W
R620	1-215-857-11	METAL OXIDE	10	5%	1W
R625	1-216-817-11	METAL CHIP	470	5%	1/10W
R626	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R628	1-260-131-11	CARBON	470K	5%	1/2W
R629	1-245-478-21	METAL	470K	1%	1/4W

NOTE: The components identified by shading and ⚠ mark are critical for safety. Replace only with part number specified.

NOTE: Les composants identifies per un trame et une marque ⚠ sont critiques pour la securite. Ne les remplacer que par une piece portant le numero specifie.

A C

	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	R630	1-245-478-21	METAL	470K	1%	1/4W
	R631	1-218-875-11	METAL CHIP	15K	0.50%	1/10W
	R632	1-218-823-11	METAL CHIP	100	0.50%	1/10W
	R640	1-249-417-11	CARBON	1K	5%	1/4W
	R641	1-216-389-11	METAL OXIDE	1	5%	3W
	R647	1-211-992-11	METAL CHIP	91	0.50%	1/10W
	R648	1-216-864-11	SHORT CHIP			
	R650	1-216-845-11	METAL CHIP	100K	5%	1/10W
	R651	1-216-845-11	METAL CHIP	100K	5%	1/10W
	R658	1-249-393-11	CARBON	10	5%	1/4W
	R659	1-249-393-11	CARBON	10	5%	1/4W
	R660	1-216-833-11	METAL CHIP	10K	5%	1/10W
	R661	1-249-415-11	CARBON	680	5%	1/4W
	R667	1-216-833-11	METAL CHIP	10K	5%	1/10W
⚠	R668	1-249-413-11	CARBON	470	5%	1/4W
	R670	1-216-833-11	METAL CHIP	10K	5%	1/10W
	R671	1-243-979-71	METAL OXIDE	0.1	5%	2W
	R672	1-243-979-71	METAL OXIDE	0.1	5%	2W
⚠	R674	1-220-926-11	FUSIBLE	0.47	10%	1/2W
	R681	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
	R686	1-240-303-31	CEMENTED	0.22	5%	10W
	R687	1-220-797-11	CEMENTED	0.47	5%	10W
	R688	1-240-303-31	CEMENTED	0.22	5%	10W
	R691	1-216-837-11	METAL CHIP	22K	5%	1/10W
	R692	1-216-837-11	METAL CHIP	22K	5%	1/10W
	R694	1-216-837-11	METAL CHIP	22K	5%	1/10W
	R932	1-218-285-11	METAL CHIP	75	5%	1/10W
	R934	1-218-285-11	METAL CHIP	75	5%	1/10W
	R953	1-218-285-11	METAL CHIP	75	5%	1/10W
	R1510	1-216-833-11	METAL CHIP	10K	5%	1/10W
	R1511	1-216-833-11	METAL CHIP	10K	5%	1/10W

RELAY

	RY501	1-755-198-11	RELAY, AC POWER
⚠	RY600	1-755-395-11	RELAY (AC POWER)

SWITCH

S501	1-572-707-11	SWITCH, LEVER
S502	1-572-707-11	SWITCH, LEVER

	REF. NO.	PART NO.	DESCRIPTION	VALUES

TRANSFORMER

	T501	1-433-836-11	TRANSFORMER, HORIZONTAL DRIVE
⚠	T502	1-435-869-11	TRANFORMER, FERRITE (PMT)
⚠	T503	1-453-310-11	FBT ASSY NX-4521//X
⚠	T505	1-433-850-11	TRANSFORMER, HORIZONTAL LINEAR
⚠	T602	1-443-402-11	TRANSFORMER, LINE FILTER
⚠	T603	1-437-783-11	TRANSFORMER, STANDBY
⚠	T604	1-443-776-11	CONVERTER TRANSFORMER
⚠	T605	1-443-402-11	TRANSFORMER, LINE FILTER

THERMISTOR

TH501	1-800-193-00	THERMISTOR
THP501	1-803-970-11	THERMISTOR, POSITIVE

VARISTOR

⚠	VDR600	1-810-974-21	VARISTOR

C

A-1147-735-A C (VAR) BOARD, MOUNTED

4-382-854-11 SCREW (M3X10), P, SW (+)

CAPACITOR

C701	1-126-947-11	ELECT	47µF	20%	35V
C702	1-136-497-81	FILM	0.1µF	5%	50V
C703	1-126-947-11	ELECT	47µF	20%	35V
C704	1-107-652-11	ELECT	10µF	20%	250V
C705	1-107-652-11	ELECT	10µF	20%	250V
C706	1-137-528-11	MYLAR	0.1µF	10%	250V
C708	1-126-235-11	ELECT	100µF	20%	16V
C709	1-126-964-11	ELECT	10µF	20%	50V
C710	1-126-964-11	ELECT	10µF	20%	50V
C711	1-102-074-00	CERAMIC	0.001µF	10%	50V
C713	1-126-964-11	ELECT	10µF	20%	50V
C714	1-126-947-11	ELECT	47µF	20%	35V
C715	1-162-114-00	CERAMIC	0.0047µF		2KV
C716	1-162-114-00	CERAMIC	0.0047µF		2KV
C719	1-126-947-11	ELECT	47µF	20%	35V

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	REF. NO.	PART NO.	DESCRIPTION	VALUES		
		CONNECTOR				
*	CN701	1-564-506-11	PLUG, CONNECTOR	3P		
	CN702	1-695-915-11	TAB (CONTACT)			
	CN703	1-695-915-11	TAB (CONTACT)			
*	CN704	1-785-879-21	ONE TOUCH CONNECTOR			
*	CN706	1-564-510-11	PLUG, CONNECTOR	7P		
		DIODE				
	D701	8-719-901-83	DIODE	1SS83		
	D702	8-719-901-83	DIODE	1SS83		
	D703	8-719-901-83	DIODE	1SS83		
	D704	8-719-074-25	DIODE	PG104R		
	D705	8-719-108-12	DIODE	RD9.1EW		
		IC				
	IC701	8-759-803-42	IC	LA6500-FA		
	IC702	8-759-562-43	IC	TDA6108JF/N1B		
	IC703	8-759-701-59	IC	NJM78M09FA		
		JACK				
⚠	J701	1-451-470-21	SOCKET, CRT			
		COIL				
	L701	1-410-482-31	INDUCTOR	100µH		
		TRANSISTOR				
	Q700	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
	Q701	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
	Q703	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
		RESISTOR				
	R700	1-249-433-11	CARBON	22K	5%	1/4W
	R701	1-216-833-11	METAL CHIP	10K	5%	1/10W
	R702	1-216-811-11	METAL CHIP	150	5%	1/10W
	R703	1-216-809-11	METAL CHIP	100	5%	1/10W
	R704	1-249-419-11	CARBON	1.5K	5%	1/4W
	R705	1-249-429-11	CARBON	10K	5%	1/4W
	R706	1-249-381-11	CARBON	1	5%	1/4W
	R707	1-249-383-11	CARBON	1.5	5%	1/4W
	R708	1-247-807-31	CARBON	100	5%	1/4W
	R709	1-247-807-31	CARBON	100	5%	1/4W
	R710	1-247-807-31	CARBON	100	5%	1/4W
	R711	1-260-328-11	CARBON	1K	5%	1/2W
	R712	1-260-328-11	CARBON	1K	5%	1/2W
	R713	1-260-328-11	CARBON	1K	5%	1/2W
	R714	1-260-087-11	CARBON	100	5%	1/2W
	R715	1-260-132-11	CARBON	560K	5%	1/2W
	R716	1-260-087-11	CARBON	100	5%	1/2W
	R717	1-216-375-00	METAL OXIDE	3.3	5%	2W
	R718	1-216-373-11	METAL OXIDE	2.2	5%	2W
	R719	1-215-888-00	METAL OXIDE	220	5%	2W
	R720	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
	R721	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
	R722	1-247-807-31	CARBON	100	5%	1/4W
	R723	1-247-807-31	CARBON	100	5%	1/4W
	R724	1-247-807-31	CARBON	100	5%	1/4W
	R725	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
	R726	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
	R727	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
	R731	1-216-864-11	SHORT CHIP			
	R732	1-216-833-11	METAL CHIP	10K	5%	1/10W
	R733	1-216-833-11	METAL CHIP	10K	5%	1/10W
	R734	1-216-809-11	METAL CHIP	100	5%	1/10W
		VARIABLE RESISTOR				
⚠	RV701	1-241-656-11	RES, ADJ, METAL FILM	110M		
	RV702	1-238-019-11	RES, ADJ, METAL FILM	47K		

GS

		A-1154-657-A	**GS (VAR) BOARD, MOUNTED**			
		4-382-854-11	SCREW (M3X10), P, SW (+)			
		CAPACITOR				
	C1630	1-126-967-11	ELECT	47µF	20%	50V
	C1690	1-126-943-11	ELECT	2200µF	20%	25V
	C1691	1-126-943-11	ELECT	2200µF	20%	25V
		CONNECTOR				
*	CN1650	1-564-507-11	PLUG, CONNECTOR	4P		
*	CN1670	1-564-507-11	PLUG, CONNECTOR	4P		

GS HS MD

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	IC				
IC1690	6-705-958-01	IC	PQ15RW21J00H		
	RESISTOR				
R1691	1-215-433-00	METAL	3.3K	1%	1/4W
R1692	1-215-433-00	METAL	3.3K	1%	1/4W
R1694	1-215-429-00	METAL	2.2K	1%	1/4W

HS

	A-1104-994-A	**HS (VAR) BOARD, MOUNTED**			
	CAPACITOR				
C1001	1-104-665-11	ELECT	100µF	20%	25V
C1201	1-130-471-00	MYLAR	0.001µF	5%	50V
C1234	1-126-960-11	ELECT	1µF	20%	50V
C1235	1-126-960-11	ELECT	1µF	20%	50V
	DIODE				
D1001	8-719-929-15	DIODE	HZS9.1NB2		
D1002	6-501-276-01	DIODE	LNK0210022G4		
D1003	8-719-929-15	DIODE	HZS9.1NB2		
D1004	8-719-929-15	DIODE	HZS9.1NB2		
D1005	8-719-929-15	DIODE	HZS9.1NB2		
D1233	8-719-108-12	DIODE	RD9.1EW		
D1235	8-719-108-12	DIODE	RD9.1EW		
D1236	8-719-108-12	DIODE	RD9.1EW		
	IC				
IC1001	8-742-212-20	HYB IC	SBX3081-71		
	JACK				
J1231	1-794-048-11	JACK, PIN	3P		
	TRANSISTOR				
Q1001	8-729-922-37	TRANSISTOR	2SD2144S-UVW		
	RESISTOR				
R1002	1-249-429-11	CARBON	10K	5%	1/4W
R1003	1-249-417-11	CARBON	1K	5%	1/4W
R1004	1-249-417-11	CARBON	1K	5%	1/4W
R1005	1-249-413-11	CARBON	470	5%	1/4W
R1007	1-247-807-31	CARBON	100	5%	1/4W
R1008	1-249-427-11	CARBON	6.8K	5%	1/4W
R1009	1-249-421-11	CARBON	2.2K	5%	1/4W
R1010	1-249-416-11	CARBON	820	5%	1/4W
R1011	1-249-415-11	CARBON	680	5%	1/4W
R1201	1-249-419-11	CARBON	1.5K	5%	1/4W
R1202	1-249-421-11	CARBON	2.2K	5%	1/4W
R1203	1-249-427-11	CARBON	6.8K	5%	1/4W
R1235	1-249-409-11	CARBON	220	5%	1/4W
R1236	1-249-441-11	CARBON	100K	5%	1/4W
R1237	1-249-409-11	CARBON	220	5%	1/4W
R1238	1-249-441-11	CARBON	100K	5%	1/4W
	SWITCH				
S1001	1-692-431-21	SWITCH, TACTILE			
S1002	1-692-431-21	SWITCH, TACTILE			
S1003	1-692-431-21	SWITCH, TACTILE			
S1004	1-692-431-21	SWITCH, TACTILE			
S1005	1-692-431-21	SWITCH, TACTILE			
S1006	1-692-431-21	SWITCH, TACTILE			
S1007	1-762-816-11	SWITCH, TACTILE			
S1008	1-762-816-11	SWITCH, TACTILE			

MD

	A-1147-045-A	**MD (VAR) BOARD, MOUNTED**			
	CAPACITOR				
C002	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C003	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C004	1-162-923-11	CERAMIC CHIP	47pF	5%	50V
C005	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C006	1-126-767-11	ELECT	1000µF	20%	16V
C007	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C008	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C009	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C010	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C011	1-162-964-11	CERAMIC CHIP	0.001µF	10%	50V
C012	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C013	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C014	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C015	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C016	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V

MD

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C017	1-126-967-11	ELECT	47µF	20%	50V
C018	1-162-968-11	CERAMIC CHIP	0.0047µF	10%	50V
C019	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C020	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C021	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C022	1-126-964-11	ELECT	10µF	20%	50V
C023	1-126-935-11	ELECT	470µF	20%	16V
C033	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C041	1-126-964-11	ELECT	10µF	20%	50V
C047	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C048	1-104-665-11	ELECT	100µF	20%	25V
C064	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C090	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C091	1-126-947-11	ELECT	47µF	20%	35V
C092	1-126-947-11	ELECT	47µF	20%	35V
C094	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C095	1-126-947-11	ELECT	47µF	20%	35V
C096	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C097	1-126-947-11	ELECT	47µF	20%	35V
C098	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C099	1-126-947-11	ELECT	47µF	20%	35V
C100	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C101	1-126-940-11	ELECT	330µF	20%	25V
C102	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C103	1-126-947-11	ELECT	47µF	20%	35V
C115	1-164-739-11	CERAMIC CHIP	560pF	5%	50V
C116	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C304	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C305	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C306	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C313	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C316	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C317	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C318	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C319	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C320	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C321	1-126-947-11	ELECT	47µF	20%	35V
C322	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C325	1-162-967-11	CERAMIC CHIP	0.0033µF	10%	50V
C326	1-164-505-11	CERAMIC CHIP	2.2µF		16V

REF. NO.	PART NO.	DESCRIPTION	VALUES		
C330	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C337	1-162-919-11	CERAMIC CHIP	22pF	5%	50V
C351	1-164-315-11	CERAMIC CHIP	470pF	5%	50V
C370	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C390	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C542	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C551	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C552	1-124-779-00	ELECT CHIP	10µF	20%	16V
C559	1-216-864-11	SHORT CHIP			
C665	1-104-665-11	ELECT	100µF	20%	25V
C666	1-104-665-11	ELECT	100µF	20%	25V
C701	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C702	1-126-947-11	ELECT	47µF	20%	35V
C3049	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C3051	1-126-964-11	ELECT	10µF	20%	50V
C3052	1-164-230-11	CERAMIC CHIP	220pF	5%	50V
C3053	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C3054	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
C3057	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3307	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3314	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3315	1-126-947-11	ELECT	47µF	20%	35V
C3509	1-124-779-00	ELECT CHIP	10µF	20%	16V
C3511	1-126-964-11	ELECT	10µF	20%	50V
C3519	1-165-176-11	CERAMIC CHIP	0.047µF	10%	16V
C3520	1-126-933-11	ELECT	100µF	20%	16V
C3525	1-128-590-11	ELECT CHIP	100µF	20%	6.3V
C3534	1-162-966-11	CERAMIC CHIP	0.0022µF	10%	50V
C3536	1-115-416-11	CERAMIC CHIP	0.001µF	5%	25V
C3539	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3542	1-115-414-11	CERAMIC CHIP	820pF	5%	25V
C3553	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V
C3554	1-162-970-11	CERAMIC CHIP	0.01µF	10%	25V
C3560	1-216-833-11	METAL CHIP	10K	5%	1/10W
C3611	1-126-933-11	ELECT	100µF	20%	16V
C3612	1-126-933-11	ELECT	100µF	20%	16V
C3613	1-126-933-11	ELECT	100µF	20%	16V
C3638	1-104-665-11	ELECT	100µF	20%	25V
C3901	1-126-933-11	ELECT	100µF	20%	16V
C3902	1-107-826-11	CERAMIC CHIP	0.1µF	10%	16V

	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	C3984	1-126-964-11	ELECT	10µF	20%	50V
	C3988	1-126-964-11	ELECT	10µF	20%	50V
	C3989	1-126-964-11	ELECT	10µF	20%	50V
	C3990	1-126-964-11	ELECT	10µF	20%	50V
	C3991	1-126-964-11	ELECT	10µF	20%	50V
	C3994	1-126-964-11	ELECT	10µF	20%	50V
	C3995	1-124-778-00	ELECT CHIP	22µF	20%	6.3V
	C6003	1-127-573-11	CERAMIC CHIP	1µF	10%	16V
		CONNECTOR				
*	CN001	1-560-124-00	PLUG, CONNECTOR	(2.5MM)	4P	
*	CN301	1-564-512-11	PLUG, CONNECTOR		9P	
*	CN302	1-564-515-11	PLUG, CONNECTOR		12P	
*	CN303	1-564-515-11	PLUG, CONNECTOR		12P	
*	CN304	1-564-509-11	PLUG, CONNECTOR		6P	
		DIODE				
	D002	8-719-069-55	DIODE	UDZSTE-175.6B		
	D004	8-719-977-28	DIODE	DTZ10B		
	D005	8-719-977-28	DIODE	DTZ10B		
	D006	8-719-069-55	DIODE	UDZSTE-175.6B		
	D044	8-719-977-28	DIODE	DTZ10B		
	D045	8-719-977-28	DIODE	DTZ10B		
	D050	8-719-510-02	DIODE	D1NS4		
	D051	6-500-567-21	DIODE	10ERB20-TB5		
	D052	8-719-069-55	DIODE	UDZSTE-175.6B		
	D110	8-719-404-50	DIODE	MA111-TX		
	D250	1-803-974-21	VARISTOR, CHIP	(1608)		
	D304	1-803-974-21	VARISTOR, CHIP	(1608)		
	D351	6-500-697-01	DIODE	UDZSTE-173.3B		
	D390	8-719-404-50	DIODE	MA111-TX		
	D512	8-719-404-50	DIODE	MA111-TX		
	D513	8-719-404-50	DIODE	MA111-TX		
	D558	8-719-404-50	DIODE	MA111-TX		
	D559	8-719-404-50	DIODE	MA111-TX		
	D3305	1-803-974-21	VARISTOR, CHIP	(1608)		
	D3306	1-803-974-21	VARISTOR, CHIP	(1608)		
	D3307	1-803-974-21	VARISTOR, CHIP	(1608)		
	D3308	1-803-974-21	VARISTOR, CHIP	(1608)		
	D3402	1-803-974-21	VARISTOR, CHIP	(1608)		
	D3501	8-719-404-50	DIODE	MA111-TX		
	D3502	8-719-069-54	DIODE	UDZSTE-175.1B		
	D3509	1-803-974-21	VARISTOR, CHIP	(1608)		

REF. NO.	PART NO.	DESCRIPTION	VALUES		
	FERRITE BEAD				
FB302	1-469-549-21	INDUCTOR	1µH		
	FILTER				
FL001	1-234-126-21	FERRITE	0µH		
	IC				
IC001	6-805-548-01	IC	M65586MK-051FP-D		
IC002	6-704-004-01	IC	BR24L16F-WE2		
IC003	8-759-352-91	IC	PST9143NL		
IC004	8-759-533-85	IC	L88M05T-FA-TL		
IC005	6-805-597-01	IC	MB95116PMT-G-103-BNDE1		
IC301	6-701-105-01	IC	NJM2750M-TE2		
IC565	8-759-700-44	IC	NJM2902M		
IC633	8-759-641-26	IC	NJM2391DL1-33(TE1)		
IC3001	8-759-443-11	IC	NJM2283M-TE1		
IC3701	6-708-386-01	IC	AN15932A		
	CHIP CONDUCTOR				
JR44	1-216-864-11	SHORT CHIP			
JR317	1-216-809-11	METAL CHIP	100	5%	1/10W
JR318	1-216-864-11	SHORT CHIP			
JR546	1-216-864-11	SHORT CHIP			
JR3503	1-216-864-11	SHORT CHIP			
	COIL				
L002	1-234-126-21	FERRITE	0µH		
L005	1-234-126-21	FERRITE	0µH		
L006	1-414-273-11	INDUCTOR	100µH		
L007	1-414-267-21	INDUCTOR	10µH		
L011	1-234-126-21	FERRITE	0µH		
L301	1-469-555-21	INDUCTOR	10µH		
L611	1-469-561-21	INDUCTOR	100µH		
L612	1-469-561-21	INDUCTOR	100µH		
L613	1-469-561-21	INDUCTOR	100µH		
L3003	1-234-126-21	FERRITE	0µH		
L3004	1-234-126-21	FERRITE	0µH		
L3609	1-414-267-21	INDUCTOR	10µH		

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
	TRANSISTOR				
Q002	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q004	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q008	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q301	8-729-600-22	TRANSISTOR	2SA1235-F		
Q303	8-729-600-22	TRANSISTOR	2SA1235-F		
Q305	8-729-600-22	TRANSISTOR	2SA1235-F		
Q306	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q307	8-729-600-22	TRANSISTOR	2SA1235-F		
Q316	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q390	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q391	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q503	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q504	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q505	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q515	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q519	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q533	8-729-600-22	TRANSISTOR	2SA1235-F		
Q860	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q3005	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3300	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q3304	8-729-600-22	TRANSISTOR	2SA1235-F		
Q3502	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q6000	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
	RESISTOR				
R001	1-216-803-11	METAL CHIP	33	5%	1/10W
R002	1-216-864-11	SHORT CHIP			
R003	1-216-821-11	METAL CHIP	1K	5%	1/10W
R004	1-216-817-11	METAL CHIP	470	5%	1/10W
R005	1-400-427-21	FERRITE	0µH		
R006	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R007	1-400-427-21	FERRITE	0µH		
R008	1-216-864-11	SHORT CHIP			
R009	1-216-864-11	SHORT CHIP			
R011	1-216-803-11	METAL CHIP	33	5%	1/10W
R012	1-216-864-11	SHORT CHIP			
R013	1-216-864-11	SHORT CHIP			
R014	1-216-809-11	METAL CHIP	100	5%	1/10W
R015	1-216-833-11	METAL CHIP	10K	5%	1/10W
R016	1-216-809-11	METAL CHIP	100	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R018	1-216-833-11	METAL CHIP	10K	5%	1/10W
R019	1-216-864-11	SHORT CHIP			
R021	1-216-813-11	METAL CHIP	220	5%	1/10W
R022	1-216-813-11	METAL CHIP	220	5%	1/10W
R027	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R028	1-216-813-11	METAL CHIP	220	5%	1/10W
R030	1-216-813-11	METAL CHIP	220	5%	1/10W
R031	1-216-813-11	METAL CHIP	220	5%	1/10W
R032	1-216-813-11	METAL CHIP	220	5%	1/10W
R034	1-216-864-11	SHORT CHIP			
R035	1-216-809-11	METAL CHIP	100	5%	1/10W
R037	1-216-833-11	METAL CHIP	10K	5%	1/10W
R038	1-216-813-11	METAL CHIP	220	5%	1/10W
R039	1-216-813-11	METAL CHIP	220	5%	1/10W
R040	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R041	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R042	1-216-813-11	METAL CHIP	220	5%	1/10W
R043	1-216-813-11	METAL CHIP	220	5%	1/10W
R044	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R045	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R047	1-216-813-11	METAL CHIP	220	5%	1/10W
R048	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R049	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R050	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R053	1-216-837-11	METAL CHIP	22K	5%	1/10W
R054	1-216-837-11	METAL CHIP	22K	5%	1/10W
R059	1-216-821-11	METAL CHIP	1K	5%	1/10W
R060	1-216-813-11	METAL CHIP	220	5%	1/10W
R061	1-216-833-11	METAL CHIP	10K	5%	1/10W
R062	1-216-817-11	METAL CHIP	470	5%	1/10W
R063	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R070	1-216-813-11	METAL CHIP	220	5%	1/10W
R076	1-216-809-11	METAL CHIP	100	5%	1/10W
R080	1-216-833-11	METAL CHIP	10K	5%	1/10W
R081	1-216-841-11	METAL CHIP	47K	5%	1/10W
R082	1-216-857-11	METAL CHIP	1M	5%	1/10W
R083	1-216-847-11	METAL CHIP	150K	5%	1/10W
R084	1-216-819-11	METAL CHIP	680	5%	1/10W
R090	1-216-837-11	METAL CHIP	22K	5%	1/10W
R091	1-216-841-11	METAL CHIP	47K	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R092	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R093	1-216-841-11	METAL CHIP	47K	5%	1/10W
R094	1-216-864-11	SHORT CHIP			
R095	1-216-864-11	SHORT CHIP			
R096	1-216-813-11	METAL CHIP	220	5%	1/10W
R097	1-216-813-11	METAL CHIP	220	5%	1/10W
R100	1-216-849-11	METAL CHIP	220K	5%	1/10W
R101	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R110	1-216-813-11	METAL CHIP	220	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R113	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R115	1-216-817-11	METAL CHIP	470	5%	1/10W
R116	1-216-853-11	METAL CHIP	470K	5%	1/10W
R117	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R131	1-216-813-11	METAL CHIP	220	5%	1/10W
R201	1-216-813-11	METAL CHIP	220	5%	1/10W
R203	1-216-813-11	METAL CHIP	220	5%	1/10W
R212	1-216-864-11	SHORT CHIP			
R213	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R304	1-216-813-11	METAL CHIP	220	5%	1/10W
R306	1-216-813-11	METAL CHIP	220	5%	1/10W
R307	1-216-813-11	METAL CHIP	220	5%	1/10W
R309	1-216-833-11	METAL CHIP	10K	5%	1/10W
R310	1-216-821-11	METAL CHIP	1K	5%	1/10W
R311	1-216-813-11	METAL CHIP	220	5%	1/10W
R312	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R313	1-216-864-11	SHORT CHIP			
R314	1-216-833-11	METAL CHIP	10K	5%	1/10W
R318	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R319	1-216-813-11	METAL CHIP	220	5%	1/10W
R320	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R322	1-216-864-11	SHORT CHIP			
R324	1-216-821-11	METAL CHIP	1K	5%	1/10W
R326	1-400-427-21	FERRITE	0µH		
R329	1-216-813-11	METAL CHIP	220	5%	1/10W
R331	1-216-864-11	SHORT CHIP			
R332	1-216-864-11	SHORT CHIP			
R333	1-216-813-11	METAL CHIP	220	5%	1/10W
R337	1-216-801-11	METAL CHIP	22	5%	1/10W

REF. NO.	PART NO.	DESCRIPTION	VALUES		
R338	1-216-845-11	METAL CHIP	100K	5%	1/10W
R339	1-216-845-11	METAL CHIP	100K	5%	1/10W
R341	1-218-845-11	METAL CHIP	820	0.50%	1/10W
R342	1-218-847-11	METAL CHIP	1K	0.50%	1/10W
R343	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R344	1-216-821-11	METAL CHIP	1K	5%	1/10W
R345	1-216-864-11	SHORT CHIP			
R347	1-216-813-11	METAL CHIP	220	5%	1/10W
R351	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R352	1-216-853-11	METAL CHIP	470K	5%	1/10W
R365	1-216-864-11	SHORT CHIP			
R370	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R371	1-216-849-11	METAL CHIP	220K	5%	1/10W
R372	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R382	1-216-863-11	METAL CHIP	3.3M	5%	1/10W
R511	1-216-864-11	SHORT CHIP			
R513	1-216-845-11	METAL CHIP	100K	5%	1/10W
R515	1-216-845-11	METAL CHIP	100K	5%	1/10W
R526	1-216-837-11	METAL CHIP	22K	5%	1/10W
R540	1-216-833-11	METAL CHIP	10K	5%	1/10W
R547	1-218-891-11	METAL CHIP	68K	0.50%	1/10W
R556	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R557	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R634	1-215-905-11	METAL OXIDE	10	5%	3W
R701	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R702	1-218-716-11	METAL CHIP	10K	0.50%	1/10W
R703	1-218-724-11	METAL CHIP	22K	0.50%	1/10W
R704	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R707	1-218-714-11	METAL CHIP	8.2K	0.50%	1/10W
R851	1-216-821-11	METAL CHIP	1K	5%	1/10W
R852	1-218-887-11	METAL CHIP	47K	0.50%	1/10W
R860	1-216-833-11	METAL CHIP	10K	5%	1/10W
R861	1-216-833-11	METAL CHIP	10K	5%	1/10W
R862	1-216-813-11	METAL CHIP	220	5%	1/10W
R900	1-216-851-11	METAL CHIP	330K	5%	1/10W
R3057	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3058	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3085	1-216-864-11	SHORT CHIP			
R3086	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3087	1-216-809-11	METAL CHIP	100	5%	1/10W

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REF. NO.	PART NO.	DESCRIPTION	VALUES		
R3115	1-216-864-11	SHORT CHIP			
R3303	1-216-863-11	METAL CHIP	3.3M	5%	1/10W
R3305	1-216-864-11	SHORT CHIP			
R3308	1-216-809-11	METAL CHIP	100	5%	1/10W
R3315	1-216-813-11	METAL CHIP	220	5%	1/10W
R3316	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3317	1-216-813-11	METAL CHIP	220	5%	1/10W
R3328	1-216-864-11	SHORT CHIP			
R3334	1-216-813-11	METAL CHIP	220	5%	1/10W
R3335	1-216-813-11	METAL CHIP	220	5%	1/10W
R3390	1-216-864-11	SHORT CHIP			
R3391	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3392	1-216-818-11	METAL CHIP	560	5%	1/10W
R3393	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3394	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3395	1-216-864-11	SHORT CHIP			
R3396	1-216-864-11	SHORT CHIP			
R3502	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3517	1-218-873-11	METAL CHIP	12K	0.50%	1/10W
R3518	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3519	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3524	1-218-867-11	METAL CHIP	6.8K	0.50%	1/10W
R3525	1-216-821-11	METAL CHIP	1K	5%	1/10W
R3527	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R3528	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3529	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3530	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R3532	1-216-864-11	SHORT CHIP			
R3533	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R3534	1-218-720-11	METAL CHIP	15K	0.50%	1/10W
R3535	1-218-865-11	METAL CHIP	5.6K	0.50%	1/10W
R3536	1-218-869-11	METAL CHIP	8.2K	0.50%	1/10W
R3537	1-216-855-11	METAL CHIP	680K	5%	1/10W
R3539	1-216-864-11	SHORT CHIP			
R3541	1-216-830-11	METAL CHIP	5.6K	5%	1/10W
R3542	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3543	1-216-815-11	METAL CHIP	330	5%	1/10W
R3550	1-216-817-11	METAL CHIP	470	5%	1/10W
R3551	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R3553	1-216-864-11	SHORT CHIP			
R3554	1-216-827-11	METAL CHIP	3.3K	5%	1/10W
R3555	1-216-833-11	METAL CHIP	10K	5%	1/10W
R3559	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3577	1-216-864-11	SHORT CHIP			
R3580	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3599	1-216-837-11	METAL CHIP	22K	5%	1/10W
R3903	1-218-285-11	METAL CHIP	75	5%	1/10W
R3904	1-216-813-11	METAL CHIP	220	5%	1/10W
R3905	1-216-813-11	METAL CHIP	220	5%	1/10W
R3906	1-218-285-11	METAL CHIP	75	5%	1/10W
R3907	1-216-813-11	METAL CHIP	220	5%	1/10W
R3908	1-218-285-11	METAL CHIP	75	5%	1/10W
R3910	1-216-822-11	METAL CHIP	1.2K	5%	1/10W
R3990	1-216-809-11	METAL CHIP	100	5%	1/10W
R3997	1-216-809-11	METAL CHIP	100	5%	1/10W
R3998	1-216-809-11	METAL CHIP	100	5%	1/10W
R3999	1-216-809-11	METAL CHIP	100	5%	1/10W
R6001	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6002	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6003	1-216-833-11	METAL CHIP	10K	5%	1/10W
R6004	1-216-821-11	METAL CHIP	1K	5%	1/10W

CRYSTAL

X001	1-795-006-21	VIBRATOR, CRYSTAL
X002	1-795-572-11	VIBRATOR, CRYSTAL
X301	1-781-377-31	VIBRATOR, CRYSTAL

V

A-1157-081-A V (VAR) BOARD, MOUNTED

4-382-854-11 SCREW (M3X10), P, SW (+)

CAPACITOR

C901	1-107-667-11	ELECT	2.2µF	20%	400V
C902	1-107-364-11	MYLAR	0.01µF	10%	200V
C903	1-126-935-11	ELECT	470µF	20%	16V
C904	1-130-471-00	MYLAR	0.001µF	5%	50V
C905	1-107-364-11	MYLAR	0.01µF	10%	200V
C906	1-130-471-00	MYLAR	0.001µF	5%	50V
C907	1-107-963-11	ELECT	33µF	20%	250V
C908	1-126-935-11	ELECT	470µF	20%	16V
C909	1-104-999-11	MYLAR	0.1µF	5%	200V
C910	1-104-999-11	MYLAR	0.1µF	5%	200V

V

	REF. NO.	PART NO.	DESCRIPTION	VALUES		
	C911	1-126-933-11	ELECT	100µF	20%	16V
	C912	1-126-933-11	ELECT	100µF	20%	16V
	C913	1-102-074-00	CERAMIC	0.001µF	10%	50V
	C914	1-130-491-00	MYLAR	0.047µF	5%	50V
	C930	1-104-655-91	ELECT	470µF	20%	6.3V
	C931	1-104-655-91	ELECT	470µF	20%	6.3V
		CONNECTOR				
*	CN901	1-564-512-11	PLUG, CONNECTOR		9P	
*	CN902	1-770-723-11	CONNECTOR, BOARD TO BOARD		8P	
		DIODE				
	D901	8-719-924-11	DIODE	MTZJ-T-77-22		
	D902	8-719-924-11	DIODE	MTZJ-T-77-22		
	D903	8-719-991-33	DIODE	1SS133T-77		
	D905	8-719-404-50	DIODE	MA111-TX		
	D906	8-719-404-50	DIODE	MA111-TX		
	D907	8-719-404-50	DIODE	MA111-TX		
	D908	8-719-404-50	DIODE	MA111-TX		
		COIL				
	L901	1-410-473-11	INDUCTOR	18µH		
		TRANSISTOR				
	Q901	6-551-125-01	TRANSISTOR	2SC59930J1S0		
	Q902	6-551-126-01	TRANSISTOR	2SA21400J1S0		
	Q903	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
	Q904	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
	Q905	8-729-600-22	TRANSISTOR	2SA1235-F		
	Q906	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
	Q907	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
	Q908	8-729-600-22	TRANSISTOR	2SA1235-F		
		RESISTOR				
	R901	1-249-405-11	CARBON	100	5%	1/4W
	R902	1-249-385-11	CARBON	2.2	5%	1/4W
	R903	1-249-414-11	CARBON	560	5%	1/4W
	R904	1-249-432-11	CARBON	18K	5%	1/4W
	R905	1-249-421-11	CARBON	2.2K	5%	1/4W
	R906	1-249-432-11	CARBON	18K	5%	1/4W
	R907	1-249-385-11	CARBON	2.2	5%	1/4W
	R908	1-249-414-11	CARBON	560	5%	1/4W
	R909	1-260-316-51	CARBON	100	5%	1/2W
	R910	1-215-915-11	METAL OXIDE	470	5%	3W
	R911	1-215-405-00	METAL	220	1%	1/4W
	R912	1-249-407-11	CARBON	150	5%	1/4W
	R913	1-215-391-00	METAL	56	1%	1/4W
	R914	1-249-416-11	CARBON	820	5%	1/4W
	R915	1-249-425-11	CARBON	4.7K	5%	1/4W
	R917	1-249-425-11	CARBON	4.7K	5%	1/4W
	R918	1-249-401-11	CARBON	47	5%	1/4W
	R919	1-249-401-11	CARBON	47	5%	1/4W
	R921	1-249-429-11	CARBON	10K	5%	1/4W
	R922	1-249-397-11	CARBON	22	5%	1/4W
	R923	1-249-401-11	CARBON	47	5%	1/4W
	R930	1-216-864-11	SHORT CHIP			
	R931	1-249-421-11	CARBON	2.2K	5%	1/4W
	R932	1-218-851-11	METAL CHIP	1.5K	0.50%	1/10W
	R933	1-216-864-11	SHORT CHIP			
	R935	1-249-405-11	CARBON	100	5%	1/4W
	R938	1-216-864-11	SHORT CHIP	0		

ACCESSORIES AND PACKING

*	2-657-860-01	BAG, PROTECTION
	2-655-669-01	CARTON, INDIVIDUAL
*	4-088-874-01	CUSHION, LOWER
*	4-088-875-01	CUSHION, UPPER
	2-591-502-22	MANUAL, INSTRUCTION

REMOTE COMMANDER

1-479-399-11	REMOTE COMMANDER RM-YD001
4-103-605-11	BATTERY COVER (for RM-YD001)

Sony Corporation
Sony Technology Center
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Service Promotion Department

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SERVICE MANUAL

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In an effort to reduce the size of this pdf file the tiled schematics are not attached to this Service Manual. To receive a complete set of the tiled schematics for this manual please submit a request to:

Service_Promotion@am.sony.com.